

**DOE ORDER 151.1C, COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM**

- Objectives
- Cancellations
- Applicability
- Responsibilities
- Implementation
- References
- Definitions
- Contact

- Chapter I – Responsibilities
- Chapter II – Reserved
- Chapter III – Operational Emergency Base Program
- Chapter IV – Operational Emergency Hazardous Materials Program
- Chapter V – Operational Emergency Events and Conditions
- Chapter VI – Energy Emergency Program
- Chapter VII – Emergency Assistance Program
- Chapter VIII – Communications Requirements
- Chapter IX – Public Affairs Policy and Planning Requirements
- Chapter X – Readiness Assurance
- Chapter XI – Program Administration
- Attachment 1 – Primary DOE Organizations to which DOE O 151.1C is Applicable
- Attachment 2 – Contractor Requirements Document

**DOE ORDER 151.1D, COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM**

- Purpose
- Cancellations
- Applicability
- Requirements
- Responsibilities
- Implementation
- References
- Contact

- Appendix A – Responsibilities
- Appendix B – Power Marketing Administration Emergency Management Program
- Attachment 1 – Contractor Requirements Document
- Attachment 2 – Definitions
- Attachment 3 – Emergency Management Core Program
- Attachment 4 – Emergency Management Hazardous Materials Program
- Attachment 5 – Secure Transportation Program
- Attachment 6 – National Response Support

## DOE ORDER 151.1C, ELEMENTS

General Requirements  
Operational Emergency Base Program  
Operational Emergency Hazardous Materials Program  
Program Administration  
Training and Drills  
Exercises  
Readiness Assurance  
Emergency Response Organization  
Off-Site Response Interfaces  
Emergency Facilities and Equipment  
Categorization and Classification  
Notifications and Communications  
Consequence Assessment  
Protective Actions and Reentry  
Emergency Medical Support  
Emergency Public Information  
Termination and Recovery  
References

## DOE ORDER 151.1D, ELEMENTS

Contractor Requirements Document  
Program Administration and Management  
All Hazards Planning Basis  
All-Hazards Planning Basis/Technical Planning Basis  
Emergency Response Organization  
Emergency Operating System  
Training and Drills  
Emergency Medical Support  
Off-Site Response Interfaces  
Emergency Categorization  
Emergency Classification  
Protective Actions  
Consequence Assessment  
Emergency Facilities and Equipment  
Notifications and Communications  
Emergency Public Information  
Termination and Recovery  
Readiness Assurance

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
1.	<p><b>GENERAL REQUIREMENTS</b> Contractors must develop and implement a Comprehensive Emergency Management System designed to:—</p>		
1.a	Minimize the consequences of all emergencies involving or affecting Departmental facilities, and activities (including transportation operations/activities);		
1.b	Protect the health and safety of all workers and the public from hazards associated with DOE/NNSA operations and those associated with decontamination, decommissioning, and environmental restoration;		
1.c	Prevent damage to the environment; and		
1.d.	Promote effective and efficient integration of all applicable policies, recommendations, and requirements including federal interagency emergency plans.		
2.	Contractors must implement and document an integrated Operational Emergency Base Program (see also DOE O 151.1C, Chapter III) for each facility and activity.		
		<p><b><u>CONTRACTOR REQUIREMENTS DOCUMENT</u></b> <i>Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this Contractor Requirements Document (CRD). The contractor is responsible for flowing down the requirements of this CRD to subcontractors at any tier to the extent necessary to ensure the contractor's compliance with the requirements.</i></p>	
		<p><i>The contractor must establish and maintain a documented emergency management program that implements the requirements of applicable Federal, State, and local laws, regulations, and ordinances for fundamental worker safety programs (e.g., fire, safety, and security). See Attachment 3, "Emergency Management Core Program."</i></p>	
		<p><i>In addition to the requirements set forth in this CRD, contractors are responsible for complying with Attachments 2, 3,4, 5, and 6 to DOE O 151.1D referenced in and made part of this CRD and which provide program requirements and/or information applicable to contracts in which this</i></p>	

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>CRD is inserted. References to a DOE directive in this CRD or in its attachments refer to the CRD associated with the referenced DOE directive.</i>	
		<i>Contractors may meet the requirements of this order by implementing nationally recognized standards, such as the National Fire Protection Association (NFPA) Standard 1600, "Standard on Disaster/Emergency Management and Business Continuity Programs," with prior approval through the formal equivalency and exemption process; see section 3.c(1) of this order.</i>	
2.a	<p><b>OPERATIONAL EMERGENCY BASE PROGRAM</b>  The Operational Emergency Base Program must be based on a Hazards Survey. A Hazards Survey is an examination of the features and characteristics of the facility or activity to identify the generic emergency events and conditions (including natural phenomena such as earthquakes and tornadoes; wild land fires; and other serious events involving or affecting health and safety, the environment, safeguards, and security at the facility) and the potential impacts of such emergencies. [See also DOE O 151.1C, Chapter III, paragraph 3a.]</p>	<p><u>Performing an All-Hazards Survey</u>  The All-Hazards Survey is conducted to determine applicable hazards and threats that are plausible for each site. The All-Hazard Survey must:  Address the following.</p>	Attachment 3 2.a.(5)(a)
		<u>Natural hazards</u> , which result from acts of nature, such as hurricanes, earthquakes, tornadoes, animal disease outbreak, pandemics, or epidemics.	<u>1</u>
		<u>Technological hazards</u> , which result from accidents or the failures of systems and structures, such as hazardous materials releases, or dam failures.	<u>2</u>
		<u>Human-caused incidents</u> , which result from the intentional actions of an adversary, such as a threatened or actual chemical attack, biological attack, or cyber incident.	<u>3</u>
		<p><b><u>ALL-HAZARDS SURVEY</u></b>  An All-Hazards Survey must be performed by DOE/NNSA sites/facilities/activities. Its purpose is to identify all hazards that are applicable to the operation of that entity and establishes the planning basis for the emergency management program. Each All-Hazards Survey must address the following.</p>	Attachment 3 2.a.
2.a. (1)(a)	Each Hazards Survey must—identify (e.g., in matrix or tabular form) the emergency conditions (e.g., fires, work place accidents, natural phenomena, etc.);		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
2.a. (1)(b)	Describe the potential health, safety, or environmental impacts;	<i>Describe the applicable potential health, safety, or environmental impacts;</i>	2.a.(1)
		<i>Identify the need for development of further planning and preparedness beyond the Emergency Management Core Program requirements that will apply to each type of hazard;</i>	2.a.(2)
		<i>Include conducting a Threat and Hazard Identification and Risk Assessment (THIRA) in accordance with the Department of Homeland Security, Comprehensive Preparedness Guide (CPG) 201, Threat and Hazard Identification and Risk Assessment Guide. Conduct this analysis using the CPG to identify potential hazards, threats, capability targets, and resources. The THIRA template (Appendix A of the CPG) shall be used to document and maintain the assessment.</i>	2.a.(5)(b)
		<i>A summary of the THIRA must be included in the annual Emergency Readiness Assurance Plans (ERAP) for submission to its Program Secretarial Officer and the Associate Administrator, Office of Emergency Operations.</i>	<u>1</u>
		<i>Using this information, the Office of Emergency Management must prepare a DOE Enterprise Threat and Hazard Risk Profile.</i>	<u>2</u>
		<i>Associate Administrator, Office of Emergency Operations must prepare a DOE Enterprise Threat and incorporates analyses and assessment information required in other applicable DOE directives (e.g., Baseline Needs Assessment, safety basis documents, etc.).</i>	2.a.(5)(c)
		<i>For severe events consider the reliance on local/regional offsite responders and considerations for how the site/facility/activity will handle severe incidents if these response resources are not available.</i>	2.a.(5)(d)
		<i>In addition to the Emergency Management Core Program requirements (Attachment 3), DOE and National Nuclear Security Administration (NNSA) sites, facilities, and activities must establish and maintain an Emergency Management Hazardous Materials Program if the site, facility, or activity contains hazardous materials that were not screened out by the hazardous material screening process in Attachment 3.</i>	

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
2.a. (1)(c)	Indicate the need for further analyses of hazardous materials in an Emergency Planning Hazards Assessment (EPHA), based on the results of the hazardous material screening process described in paragraph 2b below; and		
2.a. (1)(d)	Identify the planning and preparedness requirements that apply to each type of hazard.		
2.a.(2)	Each Hazards Survey may cover multiple facilities. One Hazards Survey may be prepared to cover an entire site.	<i>May cover multiple facilities and activities, and one All-Hazards Survey may cover an entire site.</i>	2.a.(4)
2.a.(3)	Hazards surveys must be updated every three years and prior to significant changes to the site/facility or to hazardous material inventories. For example, significant changes are those changes which would result in an unreviewed safety question for nuclear facilities, as defined in 10 CFR 830, or in an unreviewed safety issue for accelerator facilities, as defined in DOE O 420.2B. Changes that result in a reduction of hazards with no adverse effect on safety or emergency preparedness or response may be included in the next scheduled review and update.	<i>Be submitted for approval to the Cognizant Field Element Manager or appropriate Federal Manager; and be updated every three years from date of issuance, and when there are significant changes to site/facility/activity operations or to hazardous material inventories. For example, significant changes may include new hazardous materials operations, recognition of hazards not previously identified, and changes that would result in an Unreviewed Safety Question for nuclear facilities, as defined in 10 CFR 830, or in an Unreviewed Safety Issue for accelerator facilities, as defined in DOE O 420.2C, Safety of Accelerator Facilities. Changes that result in a reduction of hazards with no adverse effect on safety or emergency preparedness or response may be included in the next scheduled review and update.</i>	2.a.(3)
2.b	A Hazardous Material Screening Process must identify specific hazardous materials and quantities that, if released, could produce impacts consistent with the definition of an Operational Emergency. The potential release of these materials to the environment requires further analysis in an EPHA. The release of hazardous materials less than the quantities listed below does not require quantitative analysis in an EPHA.	<i>Hazardous material screening process Categories to be considered under the All-Hazards Survey include sites/facilities/activities with radiological materials, hazardous biological agents and toxins, and toxic hazardous chemicals. A process flow diagram shows this process in Figures 3-1 to 3-5. Table 3-1 provides the screening thresholds in a tabular format.</i>	2.a.(1) <i>Should be 2.a.(6)</i>
2.b.(1)	In general, to meet the definition of an Operational Emergency [CRD paragraph 11], the release of a hazardous material must: immediately threaten or endanger personnel and emergency responders who are in close proximity of the event; have the potential for dispersal beyond the immediate vicinity of the release in quantities that threaten the health and safety of on-site personnel or the public in collocated facilities, activities, and/or off site; and have a potential rate of dispersal sufficient to require a time-urgent response to implement protective actions for workers and the public.		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
2.b.(2)	The hazardous material screening process must identify all hazardous materials in a facility/activity that require further analysis in an EPHA.	<i>All hazardous materials (i.e., radiological, biological agent/toxin, chemical, and explosive) at a DOE/NNSA site must be considered in the screening.</i>	2.a.(6)(a)
		<i>If the hazardous material at a site/facility/activity does not screen out, and is not covered by the exclusions below, an Emergency Planning Hazards Assessment (EPHA) must be conducted. See Attachment 4, Emergency Management Hazardous Materials Program.</i>	<u>2</u>
		<i>If the hazardous material at a site/facility/activity screens out by quantity or by exclusion from the screening – as described in paragraphs 2.b.(6).(c) through 2.b.(6).(h) – response plans must still be developed in accordance with paragraph 2.b.(6).(b) below to address smaller scale incidents and emergencies.</i>	<u>1</u>
		<i>Notwithstanding whether a hazardous material screens out based on the thresholds and exclusions, there is a general duty for DOE/NNSA sites/facilities/activities to –</i>	2.a.(6)(b)
		<i>Identify by using appropriate hazard information, assessment techniques and tools (e.g., Safety Data Sheets, Environmental Protection Agency (EPA) Computer-Aided Management of Emergency Operations, Department of Transportation Emergency (DOT) Response Guidebook, etc.) the consequences that may result from accidental releases of hazardous materials;</i>	<u>1</u>
		<i>Design, maintain, and operate a safe facility, taking such steps as are necessary to prevent releases;</i>	<u>2</u>
		<i>Minimize through appropriate emergency planning the consequences of accidental releases, which might occur; and</i>	<u>3</u>
Chapter III 3.b.(2)(d)	The possibility that excluded materials could initiate, through fires or explosions, the release of other hazardous materials must be considered.	<i>Consider the possibility that excluded materials could initiate, through fires or explosions, the release of collocated or hazardous materials in adjacent facilities.</i>	<u>4</u>
		<i>If, based on the assessment process in (b).1 and the professional judgment of the person(s) performing and approving the survey, additional analysis and planning is warranted in order to accomplish (b).3 in a facility, an EPHA is to be performed and the facility required to comply with the Emergency Management Hazardous Materials Program (Attachment 4).</i>	

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<p><i>If the screening is being performed for individual facilities, and the containers are not connected and are not physically in one location, then each container and its associated process should be evaluated separately. If separated containers are connected by process piping, if a credible common event (e.g., fire, loss of containment, cascading effects, etc.) in one facility could cause the material to be released from more than one container, then the total quantity of that hazardous material should be used to determine if it exceeds the applicable screening threshold.</i></p>	2.a.(6)(c)
Chapter III 3.b.(2)(b) <u>2</u>	<p>Chemical hazardous materials that require further analysis in an EPHA include chemicals with an assigned Health Hazard rating of 3 or 4 based on National Fire Protection Association (NFPA) 704 in quantities greater than a quantity that can be “easily and safely manipulated by one person” [see 29 CFR 1910.1450(b)]. Chemicals without an assigned Health Hazard rating require further analysis in an EPHA if the quantity is greater than a quantity that can be “easily and safely manipulated by one person.” Quantities of chemical hazardous materials considered to be “easily and safely manipulated by one person” can be locally-determined in accordance with the provisions of 29 CFR 1910.1450(b).</p>	<p><u>Exclusions.</u>  <i>Materials used in the same form, quantity, and concentration as a product packaged for distribution and use by the general public (e.g., consumer products for household use).</i>  <i>Materials that because their physical form, or other factors (e.g., plausible dispersal mechanisms), do not present an airborne exposure hazard. This includes solid materials in a form with particle size &gt; 10 microns and solid materials with no plausible release scenario to reduce the material to particles &lt; 10 microns, and liquids with a vapor pressure, at standard temperature under conditions of storage, of &lt;10 mmHg.</i></p>	<p><u>1</u> <u>a</u> <u>b</u></p>
GUIDE	<p>Materials in solid form that cannot be reduced to small particles (less than about 10 microns in diameter) by some plausible mechanism can be excluded from quantitative analysis because they cannot be suspended and transported in air. Materials stored in DOT Type B shipping containers with overpack may be excluded, if</p>		
		<p><i>Simple asphyxiants and cryogenic materials may be excluded but will be analyzed in the THIRA.</i></p>	<u>2</u>
		<p><i>Consistent with Federal law, fuel oil and gases (e.g., petroleum, propane, etc.) are excluded in the definition of hazardous materials used in this Order, however, large scale storage inventories must be analyzed in the THIRA and addressed in emergency management planning using appropriate guidance (e.g., National Fire Protection Association, DOT Emergency Response Guidebook, etc.) and the site's Baseline Needs Assessment. This analysis and planning should include consequences with respect to overpressure (e.g., 1 psi) or radiant heat dose (e.g.,</i></p>	<u>3</u>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>second-degree burn) exposures from explosions or fires involving these inventories. Additionally, when "oil" is a part of a process containing or collocated with another hazardous material, it must be considered in the EPHA as a possible initiator or contributor for the release of that hazardous material.</i>	
2.b.(2) (a) <u>1</u>	All radioactive materials in a facility/activity must be subjected to a hazardous material screening process.	<i><u>Radiological Materials:</u> Radioactive materials that require further analysis in an EPHA are those types and quantities associated with a defined Hazard Category 1, 2, or 3 nuclear facility per 10 CFR 830, Nuclear Safety Management; specifically those materials contributing to the categorization of such a facility.</i>	2.a.(6)(d) <u>1</u>
2.b.(2) (a) <u>2</u>	Radioactive materials that may be excluded from further analysis in a EPHA include: sealed radioactive sources that are engineered to pass the special form testing specified by the Department of Transportation (DOT) or the American National Standards Institute (ANSI); materials in solid form for which there is no plausible dispersal mechanism; materials stored in DOT Type B shipping containers with overpack, if the Certificate of Compliance are current and the materials stored are authorized by the Certificate; and, materials used in exempt, commercially available products.	<i>Radioactive materials that may be excluded include: sealed radioactive sources that are engineered to pass the special form testing specified by DOT or the American National Standards Institute; materials stored in DOT Type B shipping containers with overpack, if the Certificates of Compliance are current and the materials stored are authorized by the Certificate; and, materials used in exempt, commercially available products.</i>	2.a.(6)(c) <u>1</u> <u>c</u>
		<i>Those materials associated with a facility/activity being defined as an accelerator per DOE O 420.2C, Safety of Accelerator Facilities require further analysis in an EPHA, when in quantities greater than the largest Category 3 value listed in:</i>	<u>2</u>
2.b.(2) (a) <u>3</u>	Radioactive hazardous materials that require further analysis in an EPHA include the radioactive materials listed in DOE-STD-1027-92 in quantities greater than the Category 3 values given Attachment 1, Table A.1., of the Standard.	<i>DOE-STD-1027-92, Hazard Categorization and Accident Analysis Techniques for Compliance with 10 CFR 830, Nuclear Safety Management;</i>	<u>a</u>
		<i>NA-1 SD G 1027, Guidance on Using Release Fraction and Modern Dosimetry Information Consistently with DOE STD 1027-92, Hazard Categorization and Accident Analysis Techniques for Compliance with 10 CFR 830; and</i>	<u>b</u>
		<i>LA-12981-MS, Table of DOE-STD-1017-92 Hazard Category 3 Threshold Quantities for the ICRP-30 List of 757 Radionuclides, LANL Fact Sheet.</i>	<u>c</u>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Where there are combinations of radioactive materials, if the sum of the ratios of the quantity of each material exceeds one, a further analysis in an EPHA is required. See Attachment 4.</i>	<u>d</u>
2.b.(2) (b) <u>1</u>	All chemicals in a facility/activity with known or suspected toxic properties must be subjected in a hazardous material screening process.	<u>Chemicals</u> <i>The screening thresholds for chemicals are described as follows:</i>	2.a.(6)(f)
2.b.(2) (b) <u>2</u>	Chemicals that may be excluded from further analysis in an EPHA include: materials used in the same form, quantity, and concentration as a product packaged for distribution and use by the general public materials that have a Health Hazard rating of 0, 1, or 2 based on National Fire Protection Association (NFPA) 704; or solid or liquid materials that because their physical form, or other factors (e.g., plausible dispersal mechanism), do not present an airborne exposure hazard.		
2.b.(2) (b) <u>3</u>	Chemical hazardous materials that require further analysis in an EPHA include chemicals with an assigned Health Hazard rating of 3 or 4, based on National Fire Protection Association (NFPA) 704, in quantities greater than a quantity that can be “easily and safely manipulated by one person” [see 29 CFR 1910.1450(b)]. Chemicals <u>without</u> an assigned Health Hazard rating require further analysis in an EPHA if the quantity is greater than a quantity that can be “easily and safely manipulated by one person.” Quantities of chemical hazardous materials considered to be “easily and safely manipulated by one person” can be locally-determined in accordance with the provision of 29 CFR 1910.1450(b).	<u>Extraordinary toxic hazards</u> <i>Materials with high acute toxicity and very dispersible, may represent an extraordinary toxic hazard beyond the local incident scene, in quantities greater than one (1) pound (0.45 kg). These substances include, but may not be limited to: chemical warfare nerve agents; any substance of similar toxicity [e.g., 60-minute Acute Exposure Guideline Level (AEGL)-3, Emergency Response Planning Guideline (ERPG)-3, or Temporary Emergency Exposure Limit (TEEL)-3 values less than 3 ppm] that has been “weaponized” or designed for efficient dispersal as a gas, vapor or aerosol.</i>	<u>1</u>
		<i>Chemicals in quantities that exceed the lower threshold quantity (TQ) listed in either 40 CFR 68.130 (EPA Risk Management Program) or 29 CFR 1910.119(a).(1) [Occupational Safety and Health Administration (OSHA) Process Safety Management Program].</i>	<u>2</u>
		<i>Chemical material, location, and quantity combinations that screen in for toxic hazard screen in for inclusion in an EPHA.</i>	<u>a</u>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Chemical material, location and quantity combinations that screen in for flammability concerns without also screening in for toxic hazard under the 40 CFR 68.130 or 29 CFR 1910.119.a.1 specifications must be annotated in the All-Hazards Survey but do not require an additional EPHA.</i>	<u>b</u>
		<i>For chemicals not specifically listed above, the TQ is based on the Global Harmonized System (GHS) hazard categorizations. These categorizations can be taken from the manufacturer's Safety Data Sheet, or can be determined from other credible toxicology data sources and compared against the GHS category definitions.</i>	<u>3</u>
		<i>GHS Acute Toxicity Hazard Category 1, greater than 100 pounds (45.4 Kg).<sup>1</sup></i>	<u>a</u>
		<i>GHS Acute Toxicity Hazard of Category 2 greater than 500 pounds (227 Kg).</i>	<u>b</u>
		<i>GHS Category 1 Skin Corrosion/Irritation or Serious Eye Damage/Eye Irritation, greater than 500 pounds (227 Kg).</i>	<u>c</u>
		<i>If an initiating event will cause multiple chemicals to be released, the effects of the mixture or by-products must be evaluated for their acute toxicity, and evaluated against these threshold quantities.</i>	<u>4</u>
		<i>Ordinary products of combustion (e.g., carbon monoxide, hydrogen cyanide, etc. that are released in fires involving hydrocarbons, building components, wood, plastic, etc.), are exempt from analysis.</i>	<u>5</u>
		<i>Chemical wastes require further analysis if the storage quantities exceed those above <u>and</u> the concentration is comparable to that which would require such a similar classification (i.e., very dilute and chemically neutralized chemical waste does not require a further analysis).</i>	2.a.(6)(g)
2.b.(2)(c)	At a minimum, specific hazardous biological agents and toxins must include federally regulated agents and toxins identified in lists published in Department of Health and Human Services (HHS) regulations [42 CFR 73] and Department of Agriculture (USDA) regulations [7 CFR 331 and 9 CFR 121], and require an EPHA and a Hazardous Material Program. Toxins listed in 42 CFR 73 and 9	<i><u>Hazardous Biological Agents and Toxins:</u> Identify hazardous biological agents and toxins including Federally regulated agents and toxins identified in lists published in Department of Health and Human Services regulations [42 CFR 73] and Department of Agriculture regulations [7 CFR 331 and 9 CFR 121].</i>	2.a.(6)(e) <u>1</u>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	CFR 121 must exceed the minimum quantities specified to be federally regulated.	<i>Analyze further in an EPHA if these materials are present.</i>	2.a.(6)(e) <u>2</u>
		<u>Explosives:</u> <i>All explosives in a facility/activity must be subjected to a hazardous material screening process to determine if there is a hazardous materials impact (e.g. toxicity, dispersion of other hazardous materials).</i>	2.a.(6)(h) <u>1</u>
		<i>Facility/activity emergency planning, preparedness, and response must take into account the hazards associated with explosives and be consistent with DOE-STD-1212-2012, Explosives Safety. A graded approach must be applied based on the explosive's Hazard/Division class.</i>	<u>2</u>
		<i>Explosives are excluded from further analysis in an EPHA, regardless of the facility designation (e.g., nuclear facility), provided the explosives are also screened through the Chemical screening criteria.</i>	<u>3</u>
2.b.(2)(d)	The possibility that excluded materials could initiate, through fires or explosions, the release of other hazardous materials must be considered.		
2.b.(3)	If the screening process identifies at least one hazardous material requiring further analysis, the Hazards Survey must indicate that an EPHA is needed for that facility or activity.		
2.b.(4)	A description of the screening process and the results of its application to the hazardous materials in the facility must be included in the Hazards Survey or incorporated by reference into supporting documentation.		
2.b.(4)(a)	For facilities/activities requiring an EPHA, this documentation must be referenced or included in the EPHA.		
2.b.(4)(b)	If the quantitative analysis indicates that all events would be classified as less than an Alert, an EPHA is not required. The results of the hazardous material screening process and the quantitative analysis may be incorporated directly into the Hazards Survey or may be incorporated by references in the Hazards Survey.		
2.c.(1)	The Operational Emergency Base Program must –provide the framework for response to serious events involving health and safety, the environment, safeguards, and security; and		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
2.c.(2)	Ensure all requirements of DOE regulations and directives, regulations developed by other federal agencies, and, if applicable, state and local requirements addressing emergency issues are seamlessly integrated without duplication of emergency management effort.		
3.	<p><b>OPERATIONAL EMERGENCY HAZARDOUS MATERIAL PROGRAM</b></p> <p>For each facility, operation, and activity involved in producing, processing, handling, storing, or transporting hazardous materials (radioactive, chemical, hazardous biological agents and toxins) that has the potential to pose a serious threat to workers, the public, or the environment;</p>		
3.a.(1)	The contractor has a general duty to – identify the hazards that may result from an unplanned release of hazardous materials;		
3.a.(2)	Strive to prevent unplanned releases of hazardous materials from DOE/NNSA facilities;		
3.a.(3)	Take any steps necessary to prevent releases; and		
3.a.(4)	Use feasible means to eliminate or materially reduce the hazard to workers and the public.		
3.b.	The contractor executes this general duty by developing and documenting an integrated Operational Emergency Hazardous Material Program, which does the following:		
3.b.(1)	Identifies hazards and potential consequences from unplanned releases or (or loss of control over) hazardous materials, using accepted assessment techniques. If this assessment, called an Emergency Planning Hazards Assessment (EPHA), is required, it is used as the technical planning basis for determining the extent and scope of the Operational Emergency Hazardous Material Program.	<p><b><u>ALL-HAZARDS PLANNING BASIS/TECHNICAL PLANNING BASIS</u></b></p> <p><i>An Emergency Planning Hazards Assessment (EPHA) must be prepared and used to define the provisions of the Emergency Management Hazardous Materials Program, ensuring that the program is commensurate with the hazards identified. The EPHA provides the basis for establishing a graded approach that will meet the program requirements outlined in this Attachment. The EPHA must address the following items.</i></p>	Attachment 4 2.
GUIDE	The DOE definitions and conventions regarding what is and is not a hazardous material emergency need to be consistent with established Federal, State, local and industry programs and standards and with the historical roots of hazardous material emergency management, in general.	Identify hazards and the potential consequences from unplanned releases of (or loss of control over) hazardous materials identified in the Hazards Surveys, using accepted industry assessment techniques.	Attachment 4 2.a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
GUIDE	These summarized results can then be used to estimate consequences at receptor locations relevant to each facility, including the facility boundary and nearest site boundary.	<i>Include identification of receptor locations of interest for each facility containing significant quantities of hazardous materials including:</i>	<i>Attachment 4 2.b.</i>
		<i>30 meters from the release location</i>	<i>(1)</i>
		<i>100 meters from the release location</i>	<i>(2)</i>
		<i>Site boundary</i>	<i>(3)</i>
		<i>Emergency response facilities</i>	<i>(4)</i>
		<i>Nearest assembly areas, and</i>	<i>(5)</i>
		<i>Nearest offsite at risk population such as emergency buildings, schools, and hospitals.</i>	<i>(6)</i>
		<i>Identify analyzed scenarios using short descriptive names with:</i>	<i>Attachment 4 2.c.</i>
		<i>Tabulated consequences for each scenario at key receptor locations,</i>	<i>(1)</i>
		<i>Consequences versus distance under conservative and average dispersion conditions. Conservative is defined as 95% worst-case or F stability and 1/5 m/s. Average is defined as the site-specific average or D stability and 3 m/s, and</i>	<i>(2)</i>
		<i>Distances at which the PAC and thresholds of early lethality would be exceeded at receptors identified above.</i>	<i>(3)</i>
		<i>Report distances to PAC of &gt;25 miles, as 25 miles. The accuracy of available modeling software is inaccurate for distances beyond 25 miles.</i>	<i>Attachment 4 2.d.</i>
3.b.(1)(a)	If the EPHA indicates the potential for an Alert, Site Area Emergency, or General Emergency, as defined in Chapter V, the results of the analysis must be used to determine the necessary personnel, resources, and equipment for the Operational Emergency Hazardous Material Program.	<i>Analyze scenarios where the same severe event triggers hazardous materials releases from multiple facilities and contain information about the impact of simultaneous or sequential hazardous materials releases from identified receptors above. This can be documented in the EPHA or a site level supplemental planning document. If the EPHA indicates the potential for an Alert, Site Area Emergency, or</i>	<i>Attachment 4 2.e.</i>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>General Emergency, use the results of the analysis to determine the necessary personnel, resources, and equipment for the Emergency Management Hazardous Materials Program (taking into account approved baseline needs determined through implementation of DOE O 420.1C).</i>	
3.b.(1)(b)	If the quantitative analysis indicates that all events would be classified as less than an Alert, an EPHA is not required to be maintained. The results of the hazardous material screening process and the quantitative analysis may be incorporated directly into the Hazards Survey, or may be incorporated by reference in the Hazards Survey. The minimum program requirements must encompass the requirements for Hazardous Waste Operations and Emergency Response found in 29 CFR 1910.120 and the requirements specified in paragraph 2 of the CRD.	<i>If the quantitative analysis indicates that all incidents would be classified as less than an Alert, an EPHA is not required to be maintained. The results of the hazardous material screening process and the quantitative analysis may be incorporated directly into the All-Hazards Survey, or may be incorporated by reference in the All-Hazards Survey. Analysis below Threshold Quantity (TQ) levels for chemicals or below TQ for Hazard Category 3 for radiological materials is not required during EPHA and Emergency Action Level (EAL) development.</i>	Attachment 4 2.f.
3.b.(1)(c)	An accurate and timely method for tracking changes in operations, processes, or accident analyses that involve hazardous materials (e.g., introduction of new material environments) must be established and maintained for each facility/activity. The method must allow sufficient time for emergency management personnel to review the EPHA and modify plans and procedures, as necessary. For example, significant changes are those changes which would result in an unreviewed safety question for nuclear facilities, as defined in 10 CFR 830, or in an unreviewed safety issue for accelerator facilities, as defined in DOE O 420.2B.	<i>Establish and maintain an accurate and timely method for tracking changes in operations, processes, or accident analyses that involve hazardous materials (e.g., introduction of new materials, new uses, significant changes in inventories, modification of material environments). The method must allow sufficient time for emergency management personnel to review the EPHA and modify plans and procedures, as necessary.</i>	Attachment 4 2.k.
3.b.(1)(d)	The EPHA must be reviewed as least every three years and updated prior to significant changes to the site/facility or hazardous material inventories. Changes that result in a reduction of hazards with no adverse effect on safety or emergency preparedness and response may be included in the next scheduled review and update.	<i>Review and update no less than every three years or prior to significant changes to the site/facility/activity or hazardous material inventories. For example, significant changes are those changes which would result in an unreviewed safety question for nuclear facilities, as defined in 10 CFR 830, or in an unreviewed safety issue for accelerator facilities, as defined in DOE O 420.2B.</i>	Attachment 4 2.m.
3.b.(1)(d)		<i>If the triennial review of the EPHA determines that there are no updates required, a letter to the Cognizant Field Element Manager or appropriate Federal Manager must be submitted to document the review and provide notification that an update is unnecessary.</i>	Attachment 4 2.n.
		<i>Changes that result in a reduction of hazards with no adverse effect on safety or emergency preparedness and response may be included in the next scheduled review and update.</i>	Attachment 4 2.o.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
3.b.(1)(e)	The EPHA must include a determination of the size of the Emergency Planning Zone (EPZ). The EPZ is the geographic area surrounding the site/facility for which special planning and preparedness actions are taken or need to be taken to reduce or minimize the impact on on-site personnel and public health and safety in the event of an Operational Emergency involving hazardous materials. Assumptions, methodology, models, and evaluation techniques used in the EPHA must be documented.	<i>Include a determination of the size of the Emergency Planning Zone (EPZ).</i>	<i>Attachment 4 2.g.</i>
		<i>Include a determination of the size of the Ingestion Planning Zone (IPZ).</i>	<i>Attachment 4 2.h.</i>
		<i>Prepare a consolidated/integrated EPZ for the site/facility/activity and submit for approval to the Cognizant Field Element Manager or appropriate Federal Manager.</i>	<i>Attachment 4 2.i.</i>
		<i>Document assumptions, methodology, models, and evaluation techniques used in the EPHA.</i>	<i>Attachment 4 2.j.</i>
3.b.(1)(f)	The Office of Secure Transportation (OST) must develop an EPHA for OST shipments to provide the technical planning basis for the OST Operational Emergency Hazardous Material Program.	<i>The Office of Secure Transportation (OST) must develop an EPHA for its shipments to provide an all-hazards planning basis for the OST Emergency Program. See Attachment 5. Host sites must incorporate the OST EPHA into the site-level emergency management program.</i>	<i>Attachment 4 2.p.</i>
3.b.(1)(g)	An EPHA must be developed for shipments that do not satisfy governing DOT regulations and specifications for commercial hazardous materials transport. However, if a shipment satisfies DOT regulations and specifications, then an EPHA is not required.	<i>Develop an EPHA for shipments that do not satisfy governing DOT regulations and specifications for commercial hazardous materials transport; however, if a shipment satisfies DOT regulations and specifications, then an EPHA is not required.</i>	<i>Attachment 4 2.q.</i>
3.b.(2)	Adjusts its Operational Emergency Hazardous Material Program to be commensurate with hazards that remain after a decontamination and decommission action is completed at each DOE closure site/facility.	<i>Adjust the emergency management program to be commensurate with hazards that remain after a decontamination and decommission action is completed at each DOE closure site/facility.</i>	<i>Attachment 4 2.s.</i>
3.b.(3)	Develops, implements, documents, and maintains an effective, integrated emergency management program that is commensurate with the hazards and that addresses the following program elements: program administration, training and drills; exercises; readiness assurance; emergency response organization; off-site response interfaces; emergency facilities and equipment; emergency categorization and classification; notifications and communications; consequence assessment; protective actions and reentry; emergency medical support; emergency public information; and termination and recovery.		
3.c.	The contractor at a site with multiple facilities may place facility-specific requirements in their emergency program on a site-		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	/contractor-level organization (such as a single, site-wide public information program rather than separate programs at each facility.) The contractor must gain approval, in writing, from the cognizant field element before replacing the facility-specific requirements with site-/contractor-level requirements. Replacing facility-specific requirements with site-or contractor-specific requirements does not require an exemption from the CRD.		
3.c.(1)	The contractor placing requirements on a site-/contractor-level organization must meet the requirements of the Operational Emergency Hazardous Material Program if the site contains both Operational Emergency Base Program and Operational Emergency Hazardous Material Program facilities.		
3.c.(2)	After gaining approval of the cognizant field element manager, the contractor must note those requirements placed on the site-/contractor-level organization in the emergency plan at both the facility and site/contractor levels, as well as in the program description of the Emergency Readiness Assurance Plan (ERAP).	<i>Submit the EPHA for approval to the Cognizant Field Element Manager or appropriate federal manager.</i>	<i>Attachment 4 2.i.</i>
4.	<b>PROGRAM ADMINISTRATION</b> Effective organizational management and administrative control of the facility emergency management program must be provided by establishing and maintaining authorities and resource necessary to plan, develop, implement, and maintain a viable, integrated, and coordinated comprehensive emergency management program. [See DOE O 151.1C, Chapter XI, Program Administration.]	<b><u>PROGRAM ADMINISTRATION AND MANAGEMENT</u></b> <i>Program administration and management must be established to provide effective organizational management and administrative control of the site/facility/activity emergency management program by establishing and maintaining authorities and resources necessary to plan, develop, implement, and maintain a viable, integrated, and coordinated Comprehensive Emergency Management System. DOE/NNSA sites/facilities/activities must:</i>	<i>Attachment 3 1.</i>
4.a	The contractor at all DOE/NNSA facilities must designate an individual to administer emergency management. This individual must develop and maintain the emergency plan, develop the ERAP and annual updates, develop and conduct training and exercises programs, coordinate assessment activities, develop related documentation, and coordinate emergency resources.	<i>Designate an individual to administer the emergency management program. This individual must:</i>	<i>Attachment 3 1.a.</i>
		<i>Be responsible for and have authority for day-to-day operation and maintenance of the emergency management program;</i>	<i>1.a.(1)</i>
		<i>Have access to management personnel who have authority for site/facility/activity-level resources and operations;</i>	<i>1.a.(2)</i>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Brief senior leadership on the emergency management program and their expected roles and responsibilities during an emergency. This briefing must be conducted initially and when changes occur that modify their roles and responsibilities;</i>	1.a.(3)
		<i>Ensure coordination of emergency management planning with the development and maintenance of other programs and associated documents, such as the Baseline Needs Assessment, Site Security Plan, Cybersecurity Plan, and Continuity of Operations Plan;</i>	1.a.(4)
		<i>Oversee implementation of the emergency management plan in accordance with the requirements of this order;</i>	1.a.(5)
		<i>Approve and/or concur on planning documents addressing the program elements listed below in paragraph 1a(7); and</i>	1.a.(6)
		<i>Ensure the emergency management program addresses the elements of the Emergency Management Core Program.</i>	1.a.(7)
		<i>Program Management and Administration  All-Hazards Planning Basis  Emergency Response Organization  Emergency Operations System  Training and Drills  Emergency Medical Support  Offsite Response Interfaces  Emergency Categorization  Protective Actions  Emergency Facilities and Equipment  Notifications and Communications  Emergency Public Information  Termination and Recovery  Readiness Assurance  Consequence Assessment</i>	1.a.(7) (a)-(n)
		<i>In addition to the requirements of the Emergency Management Core Program, implement the emergency management program requirements contained in Attachments 4, 5, 6, and 7 of this order for those sites/facilities/activities to which they apply.</i>	Attachment 3 1.b.
		<i>Attachment 4, Emergency Management Hazardous Material Program. This attachment contains additional requirements for sites/facilities/activities with hazards that</i>	1.b.(1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>are not screened out by the hazards screening process in Attachment 3.</i>	
		<i>Attachment 5, Secure Transportation Program. This attachment contains specific emergency management program requirements for the activities performed by the Office of Secure Transportation.</i>	1.b.(2)
		<i>Attachment 6, National Response Support. This attachment contains requirements for the Departmental elements that directly support the National Response Framework under Emergency Support Function 12.</i>	1.b.(3)
4.b	The contractor at all DOE/NNSA facilities that are generating classified information or Unclassified Controlled Nuclear Information (UCNI), or are conducting classified or UCNI operations, must review all emergency preparedness documents, such as plans, procedures, scenarios, and assessments for classified information and UCNI. This review must be conducted by the appropriate official using current guidance. If the EPHAs do not contain classified information or UCNI, they must be reviewed by the emergency management program administrator to determine if they contain potentially exploitable information. EPHAs containing potentially exploitable information must be protected as Official Use Only under exemption 2 of the Freedom of Information Act.	<i>Review emergency management documents for classified information and Unclassified Controlled Nuclear Information.</i>	Attachment 3 1. i.
4.c	The contractor at all DOE/NNSA facilities must document the Emergency Management Program in an emergency plan that also describes the provisions for response to an Operational Emergency.	<i>Develop and maintain an all-hazards emergency management plan. The emergency management plan must be:</i>	Attachment 3 1.c.
		<i>Reviewed and documented annually, and updated and approved no less than every three years.</i>	1.c.(1)
		<i>Updated if there are significant changes to the program plan (i.e., changes to organization structure, Emergency Planning Zones, etc.);</i>	1.c.(2)
		<i>Submitted to the Cognizant Field Element Manager or appropriate Federal Manager for approval.</i>	1.c.(3)
4.d	The contractor at all DOE/NNSA facilities must develop Emergency Plan Implementing Procedures to describe how emergency plans must be implemented.	<i>Develop and maintain procedures that describe how the emergency management plan must be implemented and maintained.</i>	Attachment 3 1.d.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
GUIDE	An emergency management document control system that meets industry standards for document review, approval, distribution, and change control is established or emergency management documents are controlled under an existing site-wide document control system. An auditable administrative program for ensuring the availability of vital records (i.e., essential to the continued functioning or reconstitution of an organization during or after an emergency), regardless of media, is established and reliably maintained (Cf. DOE O 243.2). If classified information or materials are being used or generated, effective security procedures and controls are implemented, and security reviews are conducted.	<i>Use a controlled document system for the emergency management plan and related procedures and documentation.</i>	1.e.
		<i>Identify a process for review, approval, and distribution of the emergency management plan and related procedures and documentation.</i>	1.f.
GUIDE	Arrangement with off-site medical facilities to transport, accept, and treat contaminated, injured personnel are established, documented, and periodically reviewed.	<i>Develop and maintain agreements for the transport, acceptance, and treatment of potentially contaminated injured personnel, as applicable. See paragraph 6 of this Attachment.</i>	1.g.
		<i>Address interoperability and integration and interface with jurisdictional responders for severe incidents with regional impacts.</i>	1.h.
4.e	The contractor at all DOE/NNSA facilities must establish a program to ensure that vital records, regardless of media, essential to the continued functioning or reconstitution of an organization during and after an emergency, are available, per 36 CFR 1236.	<i>Identify and maintain emergency operating vital records in accordance with 36 CFR 1236, Electronic Records Management.</i>	1.j.
5.	<b>TRAINING AND DRILLS</b> A comprehensive, coordinated, and documented program of training and drills must be an integral part of the emergency management program to ensure that preparedness activities for developing and maintaining program-specific emergency response capabilities are accomplished. [See DOE O 151.1C, Chapter III, paragraph 4a, and Chapter IV, paragraph 4a, Training and Drills.]	<b><u>TRAINING AND DRILLS</u></b> <i>A comprehensive, coordinated, and documented program of training and drills must be an integral part of the emergency program to ensure that preparedness activities for establishing and maintaining program-specific emergency response capabilities are accomplished. DOE/NNSA sites/facilities/activities must:</i>	Attachment 3 5.
5.a.(1)	The contractor at all DOE/NNSA facilities must – Provide initial training and periodic drills to all workers who may be required to take protective actions (e.g., shelter-in-place; assembly, evacuation). This training is required when they are employed, when their expected actions change, or when the emergency plan changes.	<i>Worker Training. Document and provide training to workers on hazards and protective actions they may be expected to take in accordance with the all-hazards planning basis.</i>	Attachment 3 5.a. (1)
		<i>This training must be provided initially and when there are changes affecting worker actions or responsibilities, and, conducted at least annually.</i>	(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Provide information on protective actions to visitors who have unescorted access.</i>	(3)
		<i>Determine based upon the all hazards planning basis if additional training must be provided to workers to address response actions that may be necessary for severe events with regional impacts when the site/facility/activity may be isolated from offsite response assistance and infrastructure support. This training may consist of self-help strategies, such as first-aid, and the location of onsite medical and life sustaining supplies and procedures for evacuation of the site/facility/activity.</i>	(4)
		<i>Determine based upon the results of the all hazards planning basis if additional training must be provided to workers at specific facilities. This training may consist of facility-specific procedures for safe shutdown/walk-away provisions and/or facility-specific response steps to take when there are disruptions to critical infrastructure (e.g., power and communications).</i>	(5)
5.a.(2)	Provide refresher training annually to certified operators and supervisors and those workers who are likely to witness a hazardous material release and who are required to notify proper authorities of the release.		
5.a.(3)	Make available emergency-related information and training on site-specific conditions and hazards to off-site personnel who may be required to participate in response to an emergency at the DOE/NNSA site/facility.	<i>Offsite First Responder Training. Provide information on site/facility/activity-specific conditions and hazards based upon the results of the all hazards planning basis.</i>	c. (1)
5.b	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish a coordinated program of training and drills for developing and/or maintaining specific emergency response capabilities as an integral part of the emergency management program. The program must apply to response to on-site emergency. Emergency-related information must be available to off-site response organizations. The program must consist of self-study/homework, training, and drills.	<b><u>TRAINING AND DRILLS</u></b> <i>In addition to the training and drill requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Materials Program must also maintain a training and drill program that includes additional capability based upon the results of the EPHAs. These DOE/NNSA sites/facilities/activities must accomplish the following.</i>	Attachment 4 5.
5.b.(1)	Training. Both initial training and annual refresher training must be provided for the instruction of a demonstration of proficiency by all personnel (i.e., primary and alternate) comprising the emergency response organization.	<i>Emergency Response Organization Training</i> <i>Develop a training and qualification program to establish and maintain specific emergency response capabilities as determined by the all-hazards planning basis. Document</i>	Attachment 3 5.b. (1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>the training requirements to include the courses, method of instructions, frequency, and intended audience.</i>	
		<i>This training must be provided initially and when there are changes, and conducted no less than annually.</i>	5.b. (2)
GUIDE	The training program requirements are in accordance with the National Response Plan (NRP) and National Incident Management System (NIMS).	<i>Include the following in ERO training: Initial training for ERO members must include: The applicable principles of ICS 100, Introduction to ICS, ICS 700, NIMS, An Introduction.</i>	5.b. (3)(a) <u>1</u>
		<i>Site/facility/activity-specific emergency response concept of operations (as documented in the emergency management plan), as applicable to each position; and</i>	<u>2</u>
GUIDE	All personnel assigned to facility-and site-level ERO positions demonstrate their proficiency in their assigned positions through periodic participation in an exercise, an evaluated drill, or an actual response. All primary and alternate personnel accomplish this participation on a rotating basis.	<i>Position-specific roles and responsibilities to include plans, procedures, job aids, and associated equipment and systems.</i>	<u>3</u>
GUIDE	The training program plan should address training for all primary and alternate personnel assigned to the facility- and site-level ERO. A training program plan typically distinguishes the following levels of training requirements: Refresher training to maintain competency and receive information on changes and lessons learned related to required knowledge and skills. Remedial training to correct deficiencies in performance or testing related to ERO positions.	<i>Refresher training must include – Lessons learned, Best practices, and Identified gaps or deficiencies on individual training.</i>	5.b. (3)(b) <u>1-3</u>
GUIDE	Facility-specific orientation training on hazards and emergency response procedures, as well as emergency notification and communications should be offered annually to state, tribal and local emergency response organizations.	<i><u>Offsite Response Agency Orientation</u> Offer orientation on the site/facility/activity-specific conditions and hazards based on the results of the all hazards planning basis including familiarization on an annual basis.</i>	Attachment 3 5.c.
		<i><u>Emergency Response Organization</u> The training and drills program must – Consist of self-study, classroom training, and drills;</i>	Attachment 4 5.a.(1)
		<i>Include training on EPHAs and EALs to appropriate ERO members; and</i>	(2)
		<i>Consist of emergency categorization and classification training to those personnel who perform this function.</i>	(3)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Determine whether drills should be conducted for ERO activities involving hazardous materials releases based upon the EPHAs;</i>	<i>Attachment 4 5.b.</i>
		<i>First Response Agencies The training and drills programs must make training available, as practical, to emergency responders, both primary and mutual aid, on any unique hazards. This may include equipment, hazardous materials identified in the EPHA, or facility configuration.</i>	<i>Attachment 4 5.c.</i>
		<i>Each Defense Nuclear Facility must conduct drills that use a graded approach for lower-level emergencies (conduct of operations) involving the Operations staff, Emergency Management staff, and Incident Command staff that include – Elements of the Emergency Operations Center (EOC) staff for Operational Emergencies;</i>	<i>Attachment 4 5.d.(1)</i>
		<i>Annual drills integrating the ERO with conduct of operations drills; and</i>	<i>(2)</i>
		<i>Regardless of the scope or mechanism (drill or exercise), evaluate Operations staff, Emergency Management staff, internal Incident Command staff, and EOC staff for continuous improvement.</i>	<i>(3)</i>
5.b.(2)	Drills. Drills must provide supervised, “hands-on” training for members of emergency response organizations.		
GUIDE	General training for employee response, including training on protective actions in an emergency is required as part of the Operational Emergency Base Program. This may be included as part of an employer's General Employee Training (GET) Program. Emergency-related information in this training should include emergency awareness, overview of the organization's emergency response plan, warning systems and alarms, protective action (e.g., evacuation and sheltering), accountability for site workers in the event of an emergency, and first aid. Employees assigned to specific responsibilities for onsite emergency response should receive additional training to address those responsibilities. At a minimum, this includes emergency managers, building wardens who support personnel accountability and protective action procedures (e.g., personnel assigned to close doors and windows and shutdown of ventilation systems), personnel assigned to perform first aid/cardio pulmonary resuscitation (CPR) or use fire	<i>Based upon the results of the all hazards planning basis, determine if additional drills and the frequency of such drills should be conducted for other protective actions that workers may be expected to take.</i>	<i>Attachment 3 5.d.(2)</i>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	extinguishers, emergency spokespersons, and personnel responsible for interface with		
6	<p><b>EXERCISES</b></p> <p>A formal exercise program must validate all elements of an emergency management program over a 5-year period. The exercise program must validate facility-and site-level emergency management program elements by initiating response to simulated, realistic emergency event/conditions in a manner that, as nearly as possible, replicates an integrated emergency response to an actual event. Planning and preparation must use an effective, structured, approach that includes documentation of specific objectives, scope, time lines, injects, controller instructions, and evaluation criteria for realistic scenarios. Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably. Lessons-learned must be developed, resulting in corrective actions and improvements. (See also DOE O 151.1C, Chapter IV, paragraph 4b, Exercises.)</p>	<p><b>EXERCISES</b></p> <p><i>DOE/NNSA sites/facilities/activities must conduct exercises to test and validate emergency plans and procedures.</i></p>	Attachment 3 14.a.(2)
GUIDE	The Department of Homeland Security (DHS) Homeland Security Exercise and Evaluation Program (HSEEP) is a Federal-level exercise program developed by the DHS for State, county and local emergency management programs. The DHS approach addresses not only Homeland Security sponsored exercises, but also those exercises where Federal level agencies may interact with State, county and local emergency management programs. Therefore, to ensure consistency with the DHS approach to exercise development, conduct, and evaluation, common exercise concepts and processes of the HSEEP are incorporated in the guidance presented in this chapter using DHS terminology where applicable.	<i>The exercise program must be consistent with the U.S. Department of Homeland Security Exercise and Evaluation Program (HSEEP).</i>	(a)
GUIDE	Drills should be as realistic as possible, using realistic scenarios based on hazards surveys and EPHAs as well as actual facility conditions. Development of exercises commensurate with, and based upon, the facility/site hazards and types of scenarios identified in the EPHAs	<i>Rotate the scenario for the annual exercise among the hazards and risks identified in the all hazards planning basis.</i>	(b)
		<i>Provide the annual exercise schedule to the Cognizant Field Element Manager or appropriate Federal Manager.</i>	(c)
GUIDE	<i>A complete, documented operations-based exercise package [i.e., an Exercise Plan (EXPLAN)], as described in DOE G 151.1-3,</i>	<i>Prepare an exercise plan.</i>	(d)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	<p><i>Chapter 3] should be produced for each annual site-level exercise. Facility-level exercises can be accomplished with an exercise package that contains only the essential elements that are required to actually conduct the exercise. Exercise participation records enable the emergency management administrator(s) to ensure that individual members of the ERO are given the opportunity to demonstrate their proficiency annually.</i></p>		
GUIDE	<p><i>Submit scenario narrative, scope, MSEL (draft), objectives and participant list to Cognizant Field Element, Program Secretarial Office and Associate Administrator, Office of Emergency Operations (NA-40). (90-day) Complete planning group review/revision of draft Exercise Plan (EXPLAN). (60-day) Submit EXPLAN to DOE/NNSA Cognizant Field Element for approval. Plan must be approved at least 30 days prior to exercise. Submit approved EXPLAN to Program Secretarial Office and Associate Administrator, Office of Emergency Operations (NA-40).</i></p>	<p><i>Submit the exercise plan for the annual evaluated site-level exercise to the Cognizant Field Element Manager or appropriate Federal Manager for approval no less than 30 calendar days prior to the exercise.</i></p>	(e)
GUIDE	<p><i>An exercise report [i.e., After Action Report (AAR)] should be produced following the exercise that provides an account of exercise control, player performance, and self-assessment evaluation findings. Finalize AAR and submit a copy to Cognizant Field Element, Program Secretarial Office and Associate Administrator, Office of Emergency Operations (NA-40).</i></p>	<p><i>After action reports must include the results of the evaluation to include findings, issues, and improvement items, and be prepared and submitted within 45 calendar days of the exercise. After action reports for the annual exercise must be submitted to the Cognizant Field Element Manager or appropriate Federal Manager.</i></p>	(f)
6.a.(1)	<p>The contractor at all DOE/NNSA facilities must – at a minimum, conduct building evacuation exercises consistent with federal regulations (e.g., (41 CFR 102-74-360], local ordinances, and National Fire Protection Association Standards. Exercises must be conducted at least annually to ensure that employees are able to evacuate their work area safely.</p>	<p><u>Worker Drills</u> <i>Conduct annual building evacuation drills consistent with 29 CFR 1910.38.</i></p>	Attachment 3 5.d.(1)
6.a.(2)	<p>Test communications systems with DOE Headquarters, the cognizant field element, and off-site agencies at least annually or as often as needed to ensure that communications systems are operational.</p>	<p><i>Test all applicable primary and backup communication systems no less than annually with Headquarters, Cognizant Field Element or appropriate Federal Manager, and offsite agencies, as applicable.</i></p>	(d)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
6.b	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish a formal exercise program to validate all elements of the emergency management program over a 5-year period. Each exercise must have specific objectives and must be fully documented (e.g., in scenario packages that include objectives, scope, timelines, injects, controller instructions, and evaluation criteria). Exercises must be evaluated. A critique process, which includes gathering and documenting observations of the participants, must be established. Corrective action items identified as a result of the critique process must be incorporated into the emergency management program.		
6.b.(1)	Each DOE/NNSA facility subject to this CRD paragraph must exercise its emergency response capability annually and include at least facility-level evaluation and critique. Evaluations of annual facility exercises by Departmental entities (e.g., cognizant field element, Program Secretarial Officer of Headquarters Office of Security and Safety Performance Assurance) must be performed periodically to each facility has an external Departmental evaluation at least every three years.		
6.b.(2)	Site-level emergency response organization elements and resources must participate in a minimum of one exercise annually. This site exercise must be designed to test and demonstrate the site's integrated emergency response capability. For multiple-facility sites, the basis for the exercise must be rotated among facilities.		
6.b.(3)	Off-site response organizations must be invited to participate in site-wide exercises at least once every three years.		
6.b.(4)	Annual emergency response exercises must be supported by documentation that contains, but is not limited to, the exercise scope, its objectives and corresponding evaluation criteria, a narrative description of the scenario, timeline, and a list of participants. Documentation for site exercises must be approved by the cognizant field element.	<i>Prepare supporting documentation for the annual exercise that contains the exercise scope, objectives and corresponding evaluation criteria, a narrative description of the scenario, timeline, and list of participants.</i>	(f)
6.b.(5)	After Action Reports (AARs) for facility and site exercises must be completed within 30 working days and submitted to the cognizant field element, the Program Secretarial Officer(s), and the Director, Office of Emergency Operations.	<i>After action reports must include the results of the evaluation to include findings, issues, and improvement items, and be prepared and submitted within 45 calendar days of the exercise.</i>	(h)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>After action reports must be submitted to the Cognizant Field Element Manager or appropriate Federal Manager.</i>	(i)
6.b.(6)	Corrective action plans must be completed within 30 working days of receipt of a final report for Operational Emergencies and an AAR for exercises.		
6.b.(7)	Completion of corrective actions for facility and site exercises must include a verification and validation process, independent of those who performed the corrective actions, that verifies that the corrective action has been put in place and that validates the corrective action has been effective in resolving the original finding. Corrective actions involving revision of procedures or training of personnel should be completed before the next exercise.		
6.b.(8)	Exercises of each of the Department's radiological emergency response assets must be conducted at least every three years. These assets include the Accident Response Group (ARG), Nuclear Emergency Support Team (NEST), Federal Radiological Monitoring and Assessment Center (FRMAC), Aerial Measuring System (AMS), National Atmospheric Release Advisory Center (NARAC), Radiation Emergency Assistance Center/Training Site (REAC/TS), and Radiological Assistance Program (RAP).		
		<i>Develop corrective actions for findings identified during evaluations, assessments, drills, exercises, and actual emergencies.</i>	(a)
7.	<p><b>READINESS ASSURANCE</b></p> <p>The emergency management Readiness Assurance Program must establish a framework and associated mechanism for assuring that emergency plans, implementing procedures, and resources are adequate by ensuring that they are sufficiently maintained, exercised, and evaluated (including assessment and appraisal) and that appropriate and timely improvements are made in response to needs identified through coordinated and comprehensive emergency planning, resource allocation, training and drills, exercises, and evaluations [See also DOE O 151.1C, Chapter X, Readiness Assurance.] The contractor at all DOE/NNSA facilities must implement a readiness assurance program consisting of evaluations, improvements, and ERAP's.</p>	<p><b><u>READINESS ASSURANCE</u></b></p> <p><i>DOE/NNSA sites/facilities/activities must participate in a formal Readiness Assurance Program that establishes a framework and associated mechanisms for assuring that emergency plans and procedures and resources are adequate by ensuring that they are sufficiently maintained, exercised, and evaluated, and that appropriate and timely improvements are made when identified. The Readiness Assurance Program serves to ensure the readiness and effectiveness of an emergency management program on a programmatic and performance level while promoting a culture of continuous improvement. The Readiness Assurance Program consists of evaluations, improvements, and the Emergency Readiness Assurance Plan.</i></p>	Attachment 3 14.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Evaluations consist of assessment, exercises, and performance indicators.</i>	a.
		<u>Assessments</u> <i>DOE/NNSA sites/facilities/activities must conduct assessments to ensure that emergency plans, procedures, emergency response activities, and resources are adequate and sufficiently maintained.</i>	(1)
7.a.(1)	Self-assessments. The contractor must conduct an annual self-assessment of their Emergency Management Program. Program and exercise evaluations (including appraisals and assessments) must be based on specific standards and criteria, issued by the Director, Office of Emergency Operations. Self-assessment results must be documented in the ERAP submitted to the cognizant field element.	<i>Conduct self-assessments annually. The self-assessment must address all program elements; however, the scope of each program element assessment does not have to include all aspects of the associated programmatic or response tasks each year. This determination must be based upon the complexity of the program and ensure that all program elements are fully assessed and/or validated through exercises over a five-year period.</i>	(a)
		<i>Support DOE/NNSA during the conduct of an external assessment.</i>	(b)
7.a.(2)	Exercise Evaluations, see CRD paragraph 6.		
7.a.(3)	Performance Indicators. Contractor facilities/sites must participate in a program of performance indicators (including performance measures and metrics) to capture and track objective data regarding the performance of emergency management programs in key functional areas.	<u>Performance Indicators</u> <i>DOE/NNSA sites/facilities/activities must participate in a program of performance indicators.</i>	(3)
7.a.(4)	No-Notice Exercises. Contractor facilities/sites must participate in a program of No-Notice Exercises, conducted at the discretion of the Director, Office of Emergency Operations, to determine if the facility/site Emergency Response Organization (ERO) accomplishes selected objectives based on applicable plans, procedures, and/or other established requirements. Facility/site involvement is limited to providing trusted agents and responding when the exercise is conducted.		
7.b.(1)	Corrective Actions. These requirements supplement those in the CRD to DOE O 414.1A, Quality Assurance. Continuous improvement in the emergency management program, results from implementation of corrective actions for findings (e.g., deficiencies,	<u>Improvements</u> <i>DOE/NNSA sites/facilities/activities must identify improvements that consist of corrective actions and lessons learned.</i>	Attachment 3 14. b.(1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	weaknesses) in all types of evaluations, including both internal and external evaluations.	<u>Corrective Actions</u> <i>Develop corrective actions for findings identified during evaluations, assessments, drills, exercises, and actual emergencies.</i>	(a)
7.b.(1)(a)	Corrective action plans must be developed within 30-working days of receipt of AAR. Corrective actions must be completed as soon as possible. Corrective actions addressing revision of procedures or training of personnel should be completed before the next annual self-assessment of the program.	<i>Develop a corrective action plan documenting corrective actions, due dates, and assignees within 45 calendar days of the assessment report or AAR.</i>	(c)
GUIDE	A formal tracking system monitors the implementation, verification, and validation of improvements made through corrective actions developed for findings from all sources.	<i>Use a formal tracking system to track completion of corrective actions. This tracking system may be part of a site/facility/activity action tracking system.</i>	(b)
		<i>Submit CAPs for approval to the Cognizant Field Element Manager or appropriate Federal Manager.</i>	(d)
7.b.(1)(b)	Completion of corrective actions must include a verification and validation process, independent of those who performed the corrective action, that verifies that the corrective action has been put in place, and validates that the corrective action has been effective in resolving the original finding.		
7.b.(2)	Lessons Learned. The readiness assurance program must include a system for incorporating and tracking lessons learned from training, drills, actual responses, and site-wide lessons learned program. DOE/NNSA contractor-operated facilities must participate in the DOE/NNSA Corporate Lessons Learned Program. DOE-STD-7507-99, The DOE Corporate Lessons Learned Program, provides guidance on use of the system.	<u>Lessons Learned</u> <i>Use a system for incorporating and tracking lessons learned from training, drills, actual responses, and a site/facility/activity-wide lessons learned program.</i>	Attachment 3 14.b. (2)(a)
		<i>Review lessons learned from emergency management program activities under DOE Order 210.2A, DOE Corporate Operating Experience Program.</i>	(b)
		<i>Review lessons learned and best practices from the Office of Enterprise Assessments annual lessons learned report, which provides opportunities for improving DOE/NNSA emergency management programs.</i>	(c)
7.c.	Facilities and off-site transportation activities must submit an ERAP to the cognizant field element by <b>September 30</b> of each year. In keeping with 31 U.S.C. 1115 and 1116, this report must identify what the goals were for the fiscal year that ended, coincident, with the due date for this report (e.g., September 30), and the degree to which these goals were accomplished. This report must also identify the goals for the next fiscal year (e.g., which starts on	<u>Emergency Readiness Assurance Plan</u> <i>DOE/NNSA sites/facilities/activities must develop an Emergency Readiness Assurance Plan (ERAP) using the format and content guidelines provided by the Program Secretarial Officer that was developed in coordination with the Associate Administrator, Office of Emergency Operations. The ERAP must –</i>	Attachment 3 14.c. (1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	October 1).	<i>Identify what the goals were for the fiscal year that ended and the degree to which those goals were accomplished;</i>	(d)
		<i>Identify the goals for the next fiscal year; and be submitted to the Cognizant Field Element Manager or appropriate Federal Manager for approval.</i>	(e)
		<i>Highlight program status, including significant changes in the emergency management program (e.g., all hazards planning basis, organizations, and exemptions);</i>	(a)
		<i>Document evaluation results and the status (e.g., open/unresolved or closed) of associated corrective actions;</i>	(c)
		<i>Include a summary of the THIRA;</i>	(b)
		<i>The Cognizant Field Element or appropriate Federal Manager must prepare and submit a consolidated ERAP covering the sites/facilities/activities under its supervision to the Program Secretarial Officer and Associate Administrator, Office of Emergency Operations by <b>November 30</b> each year. In order to meet this date, DOE/NNSA sites/facilities/activities must submit for approval the ERAP to the Cognizant Field Element or appropriate Federal Manager by <b>October 15</b> of each year unless another date is established between the Cognizant Field Element/appropriate Federal Manager and the site/facility/activity.</i>	(2)
		<b><u>READINESS ASSURANCE</u></b> <i>In addition to the readiness assurance requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Material Program must also establish and maintain a site-level exercise program that validates its emergency response capability to the hazards identified in EPHAs. These DOE/NNSA sites/facilities/activities must accomplish the following.</i>	Attachment 4 15.
		<i>Develop a formal exercise program that includes – A matrix that identifies planned exercises over the next five years and elements tested;</i>	15.a.(1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Rotation among scenarios identified in the Technical Planning Basis;</i>	(2)
		<i>Exercise scenarios involving radiological hazardous materials, if applicable;</i>	(3)
		<i>Rotation of exercise scenarios among hazardous material facilities;</i>	(4)
		<i>Invitation of offsite responding agencies and national assets, (e.g., Centers for Disease Control, Department of Agriculture, etc.) every three years;</i>	(5)
		<i>Severe event scenarios every five years;</i>	(6)
		<i>Test of design control failures in multiple facilities;</i>	(7)
		<i>Demonstration of ERO capability; and</i>	(8)
		<i>Integration with local, State and Federal agencies.</i>	(9)
		<i>Develop challenging exercises based on scenarios identified in the Technical Planning Basis that –</i>	Attachment 4 15.b.
		<i>Involve high-consequence scenarios;</i>	(1)
		<i>Involve multiple response elements; and</i>	(2)
		<i>Result in offsite effects.</i>	(3)
		<i>In order to test and demonstrate the site/facility/activity integrated emergency response capability, conduct the annual site-level exercise as a full-scale exercise involving site-level emergency response organization elements and resources and invite some offsite response organizations to participate every 3 years. This exercise must –</i>	Attachment 4 15.c.
		<i>Use a scenario from the spectrum of potential Operational Emergencies identified in EPHAs (rotated among facilities and type of incident and/or initiator), and</i>	(1)
		<i>Include demonstration of protective actions.</i>	(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Conduct a site-level exercise for a severe incident as postulated by the all-hazards planning basis no less than once every 5 years. This exercise must involve the –</i>	<i>Attachment 4 15.d.</i>
		<i>Release of hazardous materials at more than one facility/activity, and</i>	(1)
		<i>Disruption to site infrastructure, such as power, telecommunications, and roadways, and the unavailability of mutual aid.</i>	(2)
		<i>EPHA facilities with facility-level EROs must validate facility-level emergency response capability annually by initiating response to simulated, realistic emergency situations/conditions in a manner that, as nearly as possible, replicates an integrated emergency response to an actual event.</i>	<i>Attachment 4 15.e.</i>
		<i>DOE/NNSA OST Host Sites must conduct an exercise no less than once every 5 years that assesses and validates emergency response training related to the Host Site's ability to respond effectively to an OST emergency at the Host Site.</i>	<i>Attachment 4 15.f.</i>
		<i>DOE sites that do not have any Defense Nuclear Facilities may request participation of the Department's Radiological Emergency Response Assets. Requests for their participation must be made to the Director, Office of Nuclear Incident Response, no less than 6 months prior to the exercise.</i>	<i>Attachment 4 15.g.</i>
		<i>DOE/NNSA sites with a Defense Nuclear Facility or Facilities must conduct an exercise involving one or more of the Department's Radiological Emergency Response Assets no less than once every 3 years. Requests for participation of the Department's Radiological Emergency Response Assets must be made to the Director, Office of Nuclear Incident Response, no less than 6 months prior to the exercise.</i>	<i>Attachment 4 15.h.</i>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Defense Nuclear Facilities must perform the following. Conduct causal analysis to determine corrective actions for findings identified as a result of noncompliance or life safety.</i>	<i>Attachment 4 15.i.(1)</i>
		<i>Develop formal corrective action plans for identified findings. The corrective action plan must be approved by the Cognizant Field Element Manager. The Cognizant Field Element Manager must ensure effective corrective actions are tracked, identified, and implemented.</i>	(2)
		<i>Evaluate the effectiveness of corrective actions through verification and validations conducted by an independent reviewer.</i>	(3)
		<i>Identify compensatory measures for findings until causal analysis is performed and corrective actions are identified and implemented.</i>	(4)
		<i>Defense Nuclear Facilities will use a Criteria and Review Approach Document j.(CRAD), maintained by the Associate Administrator, Office of Emergency Operations, as an all-hazards focused source document that delineates what must be accomplished to satisfy the requirements of this Directive.</i>	<i>Attachment 4 15.j.</i>
8	<p><b>EMERGENCY RESPONSE ORGANIZATION</b>  An Emergency Response Organization (ERO), a structured organization with overall responsibility for initial and ongoing emergency response and mitigation, must be established and maintained for each facility/site. The ERO must establish effective control at the scene of an event/incident and integrate ERO activities with those of local agencies and organizations that provide on-site response services. An adequate number of experienced and trained personnel, including designated alternates, must be available on demand for timely and effective performance of ERO functions. [See also DOE O 151.1C, Chapter III, paragraph 3d(1) and DOE O 151.1C, Chapter IV, paragraph 3b(1), Emergency Response Organization.]</p>	<p><b><u>EMERGENCY RESPONSE ORGANIZATION</u></b>  <i>An Emergency Response Organization (ERO) is a structured organization with overall responsibility for initial and ongoing emergency response and mitigation. At a minimum, an ERO must:</i></p> <p><i>Be established and maintained for each DOE/NNSA site/facility/activity;</i></p> <p><i>Designate and train a primary and alternate for each ERO position to be available and on-demand for initial and ongoing emergency response and mitigation;</i></p>	<p><i>Attachment 3 3.</i></p> <p><i>a.</i></p> <p><i>d.</i></p>
		<i>Consists of personnel with capabilities and resources based upon the all hazards planning basis;</i>	3.b.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
8.a.	The contractor at all DOE/NNSAS facilities must assign an individual (e.g., building or facility manager or similar position) to manage and control all aspects of the site/facility response.	<i>Assign an individual ERO position with the authority to implement the site/facility/activity emergency management plan to include management and control of all aspects of the site/facility/activity response;</i>	3.c.
8.b.	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish and maintain an ERO for each site/facility with overall responsibility for the initial and ongoing response to and mitigation of an emergency. Control at the event/incident scene must be consistent with the National Incident Management System's Incident Command System, which integrates local agencies and organizations that provide on-site response services.	<i>Establish effective control at the event/incident scene in accordance with the Incident Command System (ICS) portion of the National Incident Management System (NIMS) or integrate ERO activities with those of local and federal agencies and organizations that provide onsite emergency response services in accordance with ICS/NIMS; and</i>	3.e.
		<i>Provide designated ERO members with a method of identification for emergency response consistent with NIMS/ICS.</i>	3.f.
		<b><u>EMERGENCY RESPONSE ORGANIZATION</u></b> <i>In addition to the ERO requirements contained in Attachment 3, the ERO position(s) with the authority to implement the emergency management plan and control all aspects of the response at DOE/NNSA sites/facilities/activities with a Hazardous Material Program must also be familiar with the hazards identified in EPHAs.</i>	Attachment 4 2.
		<b><u>EMERGENCY OPERATIONS SYSTEM</u></b> <i>DOE/NNSA sites/facilities/activities must have a mechanism, an Emergency Operations System, to provide centralized collection, validation, analysis and coordination of information related to an emergency. The Emergency Operations System supports on-scene response during an escalating incident by relieving the burden of site-level and external communication and securing additional resources needed for the response. It does not provide tactical direction to the Incident Commander in the field. This can be satisfied through an established Emergency Operations Center (EOC). DOE/NNSA sites/facilities/activities must accomplish the following.</i>	Attachment 3 4.
		<i>Establish an Emergency Operations System to provide strategic management, operational support, planning/intelligence, logistics and finance/administration.</i>	Attachment 3 4.a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<p><i>The Emergency Operations System must have the following capabilities:</i>  <i>Establish and maintain an overall responsibility for supporting and coordinating the response to and mitigation of an emergency.</i></p>	<p>4.b. (1)</p>
		<p><i>Utilize the basic NIMS/ICS concepts of common terminology, management unity and delegation of authority, managing by objectives, manageable span of control, and action planning.</i></p>	<p>4.b.(2)</p>
		<p><i>Activate for any declared Operational Emergency impacting the DOE/NNSA site/facility/activity, or may activate for other significant incidents and planned events when emergency management and leadership decides support operations would be advantageous to the successful management of the incident/event.</i></p>	<p>4.b.(3)</p>
		<p><i>Be scaled to the level of activation based on the severity of the incident. Staffing and functions must be performed as identified in the emergency management plan.</i></p>	<p>4.b.(4)</p>
		<p><i>Provide support to the IC and ability to maintain support status under emergency conditions for an extended period based upon the All-Hazards Survey.</i></p>	<p>4.b.(5)</p>
		<p><i>Utilize standard operating procedures and checklists to provide for:</i>  <i>Activate the Emergency Operations System, identify and notify staff, make it operational, and deactivate it;</i></p>	<p>4.b.(6) (a)</p>
		<p><i>Establish communications and coordination with IC;</i></p>	<p>(b)</p>
		<p><i>Obtain and maintain situational awareness and disseminate a common operating picture among response components and external partners, as applicable; and</i></p>	<p>(c)</p>
		<p><i>Develop plans to support:</i></p>	<p>(d)</p>
		<p><i>Operations by defining overall priorities,</i></p>	<p><u>1</u></p>
		<p><i>Establishing operational objectives,</i></p>	<p><u>2</u></p>
		<p><i>Establishing personnel accountability, and</i></p>	<p><u>3</u></p>
		<p><i>Establishing the Operational Period for the ERO staffing shift changes.</i></p>	<p><u>4</u></p>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
9	<p><b>OFF-SITE RESPONSE INTERFACES</b>            Effective interfaces must be established and maintained to ensure that emergency response activities are integrated and coordinated with the federal, tribal, state, and local agencies and organizations responsible for emergency response and protection of the workers, public, and environment. [See also DOE O 151.1C, Chapter III, paragraph 3d(2) and Chapter IV, paragraph 3b(2), Off-Site Response Interfaces.] The contractor at all DOE/NNSA facilities must coordinate with state, tribal, and local agencies and organizations responsible for off-site emergency response (e.g., “911” emergencies) and for protection of the health and safety of the public.</p>	<p><b><u>OFFSITE RESPONSE INTERFACES</u></b>  <i>DOE/NNSA sites/facilities/activities must establish and maintain interfaces with local, state, tribal, and federal organizations responsible for emergency response or who may be used to supplement response capabilities based on threats/hazards identified in the all hazards planning basis to include planning for severe events. DOE/NNSA sites/facilities/activities must, at a minimum, accomplish the following activities with offsite response organizations.</i></p>	7.
		See paragraphs 5c and 5f of this Attachment for information to be provided to offsite first responders.	a.
		Determine access protocols for routine, abnormal, and emergency conditions.	b.
		Establish a process for communications for use during onsite response.	c.
		Establish a process to coordinate emergency public information during an incident involving response by the offsite responder(s) for incidents that may affect or be of interest to the media and public. See paragraph 12.	d.
		<p><b><u>OFFSITE RESPONSE INTERFACES</u></b>  <i>In addition to the offsite interface requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Materials Program must also coordinate with local, state, tribal, and federal organizations.</i></p>	Attachment 4 7.
		Address protective actions recommended off site based upon the results of EPHAs.	a.
GUIDE	<p>Due to the critical importance of response measures taken in the early stages of an emergency, such as implementing timely protective actions, the content of initial emergency notification messages should focus on information needed to facilitate these essential activities, including:            Developing and providing PARs to offsite authorities for notification of the public</p>	Determine a notification process to use during emergencies when protective actions may be recommended off site.	b.
		Provide information to appropriate state and county agencies on bounding event scenario distance at which	c.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>PAC would be exceeded and plume arrival times at specific offsite receptors outside of the facility EPZs.</i>	
		<i>For Emergency Management Hazardous Materials Program facilities with General Emergencies involving radiological material releases, ensure adequate planning for offsite radiological monitoring support to local and state governments.</i>	d.
10	<p><b>EMERGENCY FACILITIES AND EQUIPMENT</b>  Facilities and equipment adequate to support emergency response must be available, operable, and maintained. At a minimum, facilities must include an adequate and viable command center. Equipment must include, but not limited to, personnel protective equipment, detectors, and decontamination equipment. [See also DOE O 151.1C, Chapter III, paragraph 3d(8) and Chapter IV, paragraph 3b(9), Emergency Facilities and Equipment.]</p>	<p><b><u>EMERGENCY FACILITIES AND EQUIPMENT</u></b>  DOE/NNSA sites/facilities/activities are responsible for the provision of adequate emergency facilities and equipment commensurate with the associated hazards/threats identified in the all-hazards planning basis. Equipment must be maintained for emergency response and implementation of protective actions based upon the all hazards planning basis.</p>	Attachment 3 10.
		<p><u>Personal Protective Equipment</u>  DOE/NNSA sites/facilities/activities must provide appropriate personal protective equipment (PPE) to emergency responders commensurate to the hazards present in the working environment.</p>	Attachment 3 10.a. (1)
		<p>DOE/NNSA sites/facilities/activities must identify in the emergency management plan caches of specialty equipment, such as PPE, stretchers, evacuation chairs, and self-rescuers for underground facilities, that may be required if an emergency occurs.</p>	(2)
GUIDE	<p>An emergency notification system (e.g., public address systems, alarms, etc.) should provide timely notice to site and facility personnel, DOE or NNSA field Operations Centers, and Federal, State, Tribal and local emergency response organizations and authorities for all emergencies under the most limiting set of adverse conditions. For the purposes of this Guide, “timely” means fast enough for response activities to be effective in protecting worker and public health and safety.</p>	<p><u>Communications Equipment</u>  DOE/NNSA site/facility/activity must have an emergency notification system capable of providing immediate notification and protective actions to affected employees but no later than 10 minutes after the abnormal or emergency condition is identified in accordance with the emergency management plan and related procedures.</p>	Attachment 3 10.b.
DOE O 420.1C Chapter II 3.c.(3)(f)	<p>Emergency Notification  A means to notify responders and building occupants of a fire must be provided (e.g., fire alarm signaling system and/or site-wide mass notification capabilities for major incidents affecting the site).</p>		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<u>Emergency Operations System</u> DOE/NNSA sites/facilities/activities must maintain systems and/or facilities to support emergency response operations. These must include communications capabilities and systems adequate to support ERO activities and communications with Headquarters Watch Office.	Attachment 3 10.c.
		<b><u>EMERGENCY FACILITIES AND EQUIPMENT</u></b> In addition to the emergency facilities and equipment requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Materials Program must also establish and maintain the following facilities and equipment.	Attachment 4 11.
10.a	The contractor at all DOE/NNSA facilities must provide facilities and equipment adequate to support emergency response, including the capability to notify employees of an emergency to facilitate the safe evacuation of employees from the work place, immediate work area, or both.		
10.b	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish and maintain facilities and equipment adequate to support emergency response as follows.		
10.b.(1)	A facility must be available for use as a command center.	<u>Emergency Operations Center</u> Designate and maintain a facility for use as an Emergency Operations Center. The EOC must be –	Attachment 4 11.a.
		Accessible on a twenty-four hour basis to authorized onsite and offsite ERO members;	(1)
		Equipped with systems and equipment to support EOC activities, such as information management, mapping, and secure and non-secure communications; and	(2)
		Equipped with an information management system that provides a single access point for collection and dissemination of emergency event information and provides status reports to the Headquarters Emergency Operations Center.	(3)
10.b.(2)	Provisions must be established for use of an alternate location if the primary command center is not available.	<u>Alternate Emergency Operations Center (AEOC)</u> Maintain an AEOC capability (e.g., physical, virtual, or mobile) that can perform the key functions of the primary EOC if the primary EOC is not available. Any physical AEOC must be located so both it and the primary EOC are not impacted by the same incident as determined by the	Attachment 4 11.b.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>results of the EPHAs. AEOC must be located outside the EPZ or 180 degrees opposite the EOC (i.e., upwind from the prevailing wind direction).</i>	
		<i><u>New Emergency Operations Center</u> Incorporate the following criteria into the design, construction, and maintenance of new EOCs at DOE/NNSA sites with Defense Nuclear Facilities.</i>	Attachment 4 11.c.
		<i>If the EOC is located within the EPZ, it must be able to remain habitable during radiological and hazardous materials releases.</i>	(1)
		<i>In order to withstand natural phenomena incidents, the EOC must be designated as an Essential Facility in accordance with the International Building Code or state/regional/local equivalent building code (if approved by the Cognizant Field Element Manager or appropriate Federal Manager per DOE Order 420.1C) and meet the design requirements of the applicable building code.</i>	(2)
		<i>The EOC must be capable of sustaining emergency operations for a minimum of 72 hours during severe events when site infrastructure may be disrupted.</i>	(3)
		<i>Any new Emergency Operations Center (EOC) design and construction project that has received CD-2 (Performance Baseline) approval as of the date of issuance of this Order, is exempt from the requirements of paragraph 11.c.</i>	(4)
10.b.(3)	Adequate personal protective equipment and other equipment and supplies must be available and operable to meet the needs determined by the results of the EPHA.		
		<i><u>Communications Equipment</u> Maintain EOC primary and backup communications capabilities adequate to support incidents identified in the EPHAs.</i>	Attachment 4 11.e.(1)
		<i>Maintain equipment capable of transmitting information in a secured fashion if classified or controlled unclassified information is generated, handled, or stored by the site/facility/activity.</i>	(2)
		<i><u>Meteorological Monitoring Equipment</u> Maintain a meteorological capability to provide real-time onsite/local meteorological data and maintain access to</i>	Attachment 4 11.f.(1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>meteorological expertise for site consequence assessments.</i>	
		<i>The onsite data collection, processing, and availability must meet current guidance and standards and must be appropriate for the level of incident possible per current guidance and standards (DOE O 458.1 and DOE-HDBK-1216-2015).</i>	(2)
		<i>Maintain or access a meteorological modeling capability or access to reliable real-time offsite meteorological data to conduct proper offsite consequence assessment activities if the site/facility/activity has EPHA results that indicate the potential for a General Emergency.</i>	(3)
		<i>Defense Nuclear Facilities must identify emergency response facilities (i.e., primary EOCs, control rooms, operation centers, medical facilities, fire departments). For these facilities, the DOE/NNSA facility/site must –</i>	Attachment 4 11.g.
		<i>Develop compensatory measures for emergency response facilities that are not survivable and habitable, and</i>	(1)
		<i>Maintain and test safety functions and features to ensure they function as designed.</i>	(2)
		<i>Defense Nuclear Facilities must – Develop safe shutdown or walkaway strategies for equipment and facilities during abnormal events and emergencies, and</i>	Attachment 4 11.h.(1)
		<i>Ensure seamless operations, from daily operations to an abnormal event to an emergency.</i>	(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
11.	<p><b>CATEGORIZATION AND CLASSIFICATION</b></p> <p>Operational Emergencies are major unplanned or abnormal events or conditions that: involve or affect DOE/NNSA facilities and activities by causing or having the potential to cause serious health and safety or environmental impacts; require resources from outside the immediate/affected area or local event scene to supplement the initial response; and require time-urgent notifications to initiate response activities at locations beyond the event scene. In general, to be considered an Operational Emergency, an event or condition involving the uncontrolled release of a hazardous material must: immediately threaten or endanger personnel who are in close proximity of the event; have the potential for dispersal beyond the immediate vicinity of the release in quantities that threaten the health and safety of on-site personnel or the public in collocated facilities, activities, and/or off site; and have a potential rate of dispersal sufficient to require a time-urgent response to implement protective actions for workers and the public. In addition to being categorized as Operational Emergencies, events involving the actual or potential airborne release of (or loss of control over) hazardous materials from an on-site facility or activity also require prompt and accurate classification as an Alert, Site Area Emergency, or General Emergency, based on health effects parameters measured or estimated at specific receptor locations (e.g., facility and site boundaries) and compared with protective action criteria. Predetermined conservative on-site protective actions and off-site protective action recommendations must be associated with the classification of these Operational Emergencies (as an Alert, Site Area Emergency or General Emergency). [See also DOE O 151.1C, Chapter III, paragraph 3d(3), Emergency Categorization; Chapter IV, paragraph 3b(3), Emergency Classification; and Chapter V, Operational Emergency Events and Conditions.]</p>		
11.a.(1)	The contractor at all DOE/NNSA facilities must – establish criteria for determining quickly if an event is Operational Emergency.		
11.a.(2)	Declare an Operational Emergency when events occur that represents a significant degradation in the level of safety at a site/facility and that require time-urgent response efforts from outside the site/facility. These events do not require further classification. Such events include the following.	<p><b><u>EMERGENCY CATEGORIZATION</u></b></p> <p><i>DOE/NNSA sites/facilities must declare an Operational Emergency when incidents occur that represent a significant degradation in the level of safety at a site/facility resulting in potential health and safety hazards to workers or the public.</i></p>	Attachment 3 8.a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
11.a.(2) (a)	The following events or conditions represent, cause, or have the potential to cause serious health and safety impacts to workers or members of the public.	<i>Health and Safety. The following incidents or conditions represent, cause, or have the potential to cause serious health and safety impacts to workers or members of the public.</i>	8.b.(1)
11.a.(2) (a) <u>1</u>	The discovery of radioactive or other hazardous material contamination from past DOE/NNSA operations that may have caused, is causing, or may reasonably be expected to cause uncontrolled personnel exposures exceeding protective action criteria.	<i>The discovery of radioactive or other hazardous material contamination from past DOE/NNSA operations that may have caused, is causing, or may reasonably be expected to cause uncontrolled personnel exposures exceeding protective action criteria (PAC).</i>	(a)
11.a.(2) (a) <u>2</u>	An off-site hazardous material event not associated with DOE/NNSA operations that is observed to have or is predicted to have an impact on a DOE/NNSA site, such that protective actions are required for on-site DOE/NNSA workers.	<i>An offsite hazardous material incident not associated with DOE/NNSA operations that is observed to have, or is predicted to have, an impact onsite such that protective actions are required for DOE/NNSA workers.</i>	(d)
11.a.(2) (a) <u>3</u>	An occurrence (e.g., earthquake, tornado, aircraft crash, fire, explosion) that causes or can reasonably be expected to cause significant structural damage to DOE/NNSA facilities, with confirmed or suspected personnel injury or death.	<i>An occurrence (e.g. earthquake, tornado, aircraft crash, fire, explosion, or incidents in table 3-1) that causes significant structural damage to DOE/NNSA facilities, with confirmed or suspected personnel injury or death.</i>	(b)
11.a.(2) (a) <u>4</u>	Any facility evacuation in response to an actual occurrence that requires time-urgent response by specialist personnel, such as hazardous material responders or mutual aid groups not normally assigned to the affected facility.		
11.a.(2) (a) <u>5</u>	An unplanned nuclear criticality.		
11.a.(2) (a) <u>6</u>	Any mass casualty event.	<i>Any mass casualty incident, as discussed in the Baseline Needs Assessment.</i>	8.b.(1)(c)
11.a.(2) (b)	The following events or conditions represent, cause, or have the potential to cause serious detrimental effects on the environment.	<i>The following incidents or conditions represent, cause, or have the potential to cause serious detrimental effects on the environment: Any actual or potential release of hazardous material or regulated pollutant to the environment that could result in significant offsite consequences, such as major wildlife kills, wetland degradation, aquifer contamination, or the need to secure downstream water supply intakes.</i>	
11.a.(2)(b) <u>1</u>	Any actual or potential release of hazardous material or regulated pollutant to the environment, in a quantity greater than 5 times the Reportable Quantity (RQ) specified for such material in 40 CFR 302, that could result in significant off-site consequences, such as major wildlife kills, wetland degradation, aquifer contamination, or the need to secure downstream water supply intakes.		8.b.(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
11.a.(2)(b) <u>2</u>	Any release of greater than 1,000 gallons (24 barrels) of oil to inland waters; greater than 10,000 gallons (238 barrels) of oil to coastal waters; or a quantity of oil that could result in significant off-site consequences (e.g., need to relocate people, major wildlife kills, wet-land degradation, aquifer contamination, need to secure downstream water supply intakes, etc.) [Oil as defined by the Clean Water Act (33 U.S.C 1321) means any kind of oil and includes petroleum.]		
11.a.(2)(c)	(Security incidents are also subject to reporting in accordance with DOE O 471.4, Incidents of Security Concern. Per this Order, foreign involvement in security incidents must be reported to the Office of Counterintelligence.) The following events or conditions represent, cause, or have the potential to cause degradation of security or safeguards conditions with actual or potential direct harm to people or the environment.	<i>Safeguards and Security</i> <i>Security incidents are also subject to reporting in accordance with DOE O 471.4, Incidents of Security Concern or other directives as applicable. Per this Order, foreign involvement in security incidents must be reported to the Office of Counterintelligence. The following incidents or conditions represent, cause, or have the potential to cause degradation of security or safeguards conditions with actual or potential direct harm to people or the environment. Security and Safeguard Operational Emergencies include but are not limited to:</i>	8.b.(5)
11.a.(2)(c) <u>1</u>	Actual unplanned detonation of an explosive device or a credible threat of detonation resulting from the location of a confirmed or suspicious explosive device.	<i>Unplanned detonation of an explosive device or a credible threat of detonation resulting from the location of a confirmed or suspicious explosive device.</i>	(a)
11.a.(2)(c) <u>2</u>	An actual terrorist attack or sabotage event involving a DOE/NNSA site/facility or operation.	<i>An actual terrorist attack, active threat (e.g., armed assault), cyber security incident that impacts critical infrastructure, or sabotage incident involving a DOE/NNSA site/facility/activity.</i>	(b)
11.a.(2)(c) <u>3</u>	Kidnapping or taking hostage(s) involving a DOE/NNSA site/facility or operation.	<i>Kidnapping or taking hostage(s) involving a DOE/NNSA site/facility/activity.</i>	(c)
11.a.(2)(d)	The following events or conditions represent an actual or potential release of hazardous materials from a DOE/NNSA shipment.	<i>Offsite DOE Transportation Activities. The following incidents or conditions represent an actual or potential release of hazardous materials from a DOE/NNSA shipment: Any accident/incident involving an offsite DOE/NNSA shipment containing hazardous materials that causes the initial responders to initiate protective actions at locations beyond the immediate/affected area.</i>	8.b.(3)
11.a.(2)(d) <u>1</u>	Any accident/incident involving an off-site DOE/NNSA shipment containing hazardous materials that cause initial responders to initiate protective actions at locations beyond the immediate/affected area.		
11.a.(2)(d) <u>2</u>	Failures in safety systems threaten the integrity of a nuclear weapon, component, or test device.		
11.a.(2)(d) <u>3</u>	A transportation accident results in damage to a nuclear explosive, nuclear explosive-like assembly, or Category I/II quantity of Special		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	Nuclear Materials.		
11.a.(2)(e)	The following events or conditions involving the release of hazardous biological agent or toxin [identified in 42 CFR 73, 7 CFR 331 and 9 CFR 121] represent major failure of safety systems, protocols, and/or practices with the potential to have a serious impact on health and safety of workers, collocated workers, emergency responders, members of the public, or the environment: Any actual or potential release of a hazardous biological agent or toxin outside of the secondary barriers of the biocontainment area.	<u>Hazardous Biological Agent or Toxins</u> The following incidents or conditions involving the release of a hazardous biological agent or toxin [identified in 42 CFR 73, 7 CFR 331 and 9 CFR 121] represent major failure of safety systems, protocols, and/or practices with the potential to have a serious impact on health and safety of workers, collocated workers, emergency responders, members of the public, or the environment: Any actual or potential release of a hazardous biological agent or toxin outside of the secondary barriers of the biocontainment area.	8.b.(4)
11.a.(3)	Categorize an event as an Operational Emergency as promptly as possible, but not later than 15 minutes after event recognition/identification/discovery.	<u>Operational Emergencies must be categorized as promptly as possible, but no later than 15 minutes after identification of the decision maker for the categorization, in accordance with the emergency management plan. Such incidents include the following:</u>	Attachment 3 8.b.
11.b.	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish procedures to classify emergency events (as an Alert, Site Area Emergency, General Emergency).	<b><u>EMERGENCY CLASSIFICATION</u></b> In addition to the emergency categorization requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Material Program must also have provisions to classify incidents involving the actual or potential airborne release of (or loss of control over) hazardous materials from an onsite facility/activity as an Alert, Site Area Emergency, or General Emergency based on health effects parameters measured or estimated at 30 meters, 100 meters, and the site boundary and compared with the appropriate protective action criterion. DOE/NNSA sites/facilities/activities with a Hazardous Material Program must accomplish the following.	Attachment 4 8.
11.b.(1)	Hazardous material emergencies involving DOE/NNSA facilities must be classified Operational Emergencies as either an Alert, Site Area Emergency, or General Emergency, in order of increasing severity, when events occur that represent a specific threat to workers and the public due to the release or potential release of	<u>Establish procedures to classify Operational Emergencies (as an Alert, Site Area Emergency, and General Emergency) based upon the appropriate PAC listed below.</u>	Attachment 4 8.a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	significant quantities of hazardous materials. Classification aids in the rapid communication of critical information and the initiation of appropriate time-urgent emergency response actions. Events, listed in paragraph 11a, above, that serve as initiating events for the release of hazardous materials must be classified under the provisions of this section.	<i>Classify as either an Alert, Site Area Emergency, or General Emergency, in order of increasing severity, when incidents occur that represent a specific threat to workers and the public due to the release or potential release of significant quantities of hazardous materials. Classification aids in the rapid communication of critical information and the initiation of appropriate time-urgent emergency response actions. The classification levels are:</i>	Attachment 4 8.b.
11.b.(1)(a)	An alert must be declared when events are predicted, are in progress, or have occurred that result in one or more of the following.	<u>Alert</u> <i>An Alert must be declared when incidents are predicted, are in progress, or have occurred that result in an actual or credible threat of substantial degradation in the level of control over hazardous materials under one or more of the following situations.</i>	Attachment 4 8.b.(1)
		<i>The radiation dose from any release to the environment of radioactive material or a concentration in air of hazardous chemical material is expected to exceed either the applicable protective action criterion at or beyond 30 meters but not beyond 100 meters from the release to the environment:</i>	Attachment 4 8.b.(1)(1) <i>Should be 8.b.(1)(a)</i>
11.b.(1)(a) <u>1</u>	An actual or potential substantial degradation in the level of control over hazardous materials.		
11.b.(1)(a) <u>1</u> <u>a</u>	The radiation dose from any releases to the environments of radioactive material or a concentration in air of other hazardous materials is expected to exceed either-	<i>For radioactive material, the Protective Action Guides (PAGs) promulgated by the Environmental Protection Agency (EPA) must be used.</i>	Attachment 4 8.a.(1)
11.b.(1)(a) <u>1</u> <u>ai</u>	A site-specific criterion corresponding to 10 percent of the applicable protective action criterion [see Base Order, paragraph 4a(14)] at or beyond the facility boundary; or		
11.b.(1)(a) <u>1</u> <u>aii</u>	The applicable protective action criterion at or beyond 30 meters from the point of release to the environment.		
11.b.(1)(a) <u>1</u> <u>b</u>	It is not expected that the applicable protective action criterion will be exceeded at or beyond the facility boundary.		
11.b.(1)(a) <u>2</u>	An actual or potential substantial degradation in the level of safety or security of a nuclear weapon, component, or test device that would not pose an immediate threat to workers or the public.	<i>An actual or potential substantial degradation in the level of safety or security of a nuclear weapon, component, or test device at a fixed site/facility that would not pose an immediate threat to workers or the public.</i>	Attachment 4 8.b.(1)(2) <i>Should be 8.b.(1)(b)</i>

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
11.b.(1)(a) <u>3</u>	An actual or potential substantial degradation in the level of safety or security of a facility or process that could, with further degradation, produce a Site Area Emergency or General Emergency.		
11.b.(1)(b)	A Site Area Emergency must be declared when events are predicted, in progress, or have occurred that result in one or more of the following situations.	<i>Site Area Emergency</i> A Site Area Emergency must be declared when incidents are predicted, in progress, or have occurred that result in an actual or credible threat of substantial degradation in the level of control over hazardous materials under one or more of the following situations.	Attachment 4 8.b.(2)
		<i>The radiation dose from any release of radioactive material or concentration in air from any release of other hazardous material is expected to exceed the applicable protective action criterion at or beyond 100 meters from the release to the environment but not at or beyond the site boundary.</i>	(a)
11.b.(1)(b) <u>1</u>	An actual or potential major failure of functions necessary for the protection of workers or the public. The radiation dose from any release of radioactive material or concentration in air from any release of other hazardous material is expected to exceed the applicable protective action criterion [see Base Order, paragraph 4a(14) ] at or beyond the facility boundary. The protective action criterion is not expected to be exceeded at or beyond the site boundary.		
11.b.(1)(b) <u>2</u>	An actual or potential threat to the integrity of a nuclear weapon, component, or test device that may adversely impact the health and safety of workers in the immediate area, but not the public.	<i>An actual or potential threat to the integrity of a nuclear weapon, component, or test device that may adversely impact the health and safety of workers in the immediate area, but not the public.</i>	(b)
11.b.(1)(b) <u>3</u>	Actual or potential major degradation in the level of safety or security of a facility or process that could, with further degradation, produce a General Emergency.		
11.b.(1)(c)	A General Emergency must be declared when event are predicted, in progress, or have occurred that result in one or more of the following situations.	<i>General Emergency</i> A General Emergency must be declared when incidents are predicted, in progress, or have occurred that result in an actual or credible threat of substantial degradation in the level of control over hazardous materials under one or more of the following situations.	Attachment 4 8.b.(3)
		<i>The radiation dose from any release of radioactive material or a concentration in air from any release of other hazardous chemical is expected to exceed the applicable protective action criterion at or beyond the site boundary.</i>	(a)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
11.b.(1)(c) <u>1</u>	Actual or imminent catastrophic reduction of facility safety or security systems with potential for the release of large quantities of hazardous materials to the environment. The radiation dose from any release of radioactive material or a concentration in air from any release of other hazardous material is expected to exceed the applicable protective action criterion [see Base Order, paragraph 4a(14)] at or beyond the site boundary.		
11.b.(1)(c) <u>2</u>	Actual or likely catastrophic failures in safety or security systems threatening the integrity of a nuclear weapon, component, or test device that may adversely impact the health and safety of workers and the public.	<i>Actual or likely catastrophic failures in safety or security systems threatening the integrity of a nuclear weapon, component, or test device that may adversely impact the health and safety of workers and the public.</i>	(b)
11.b.(2)	Site/facility-specific Emergency Action Levels (EALs) must be developed for the spectrum of potential Operational Emergencies identified by the EPA and must include protective actions corresponding to each EAL.	<i>Develop site/facility/activity-specific Emergency Action Levels (EALs) for the spectrum of potential Operational Emergencies identified by the EPA and include protective actions corresponding to each EAL.</i>	Attachment 4 2.r.
		<i>For chemicals, the PAC, listed in order of preference, must be used: Acute Exposure Guideline Levels (AEGs) (60-minute values/level 2) promulgated by the EPA; Emergency Response Planning Guidelines (ERPGs) (level 2 values) published by the American Industrial Hygiene Association; and Temporary Emergency Exposure Limits (TEELs) (level 2 values) developed by DOE.</i>	Attachment 4 8.a.(2)
		<i>For hazardous biological materials and toxins identified in Attachment 3, PAC are considered exceeded and immediate protective actions are required for any actual or potential release of agents or toxins outside of secondary containment barriers. Long-term PAC are specified by State or local public health officials.</i>	Attachment 4 8.a.(3)
		<i>Respond appropriately to each emergency classification level. Actions required for response to an Operational Emergency must be implemented. See Attachment 3, Section 4.</i>	Attachment 4 8.c.
		<i>Alert Declaration of an Alert does not necessarily require the activation of response centers.</i>	(1)
		<i>Site Area Emergency Declaration of a Site Area Emergency requires the same response as for an Alert plus notification and assembly of emergency response personnel and equipment to activate</i>	(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>response centers and to establish communications, consultation, and liaison with offsite authorities.</i>	
		<i>General Emergency Declaration of General Emergency requires the same response as for a Site Area Emergency, plus the notification, mobilization, and dispatch of all appropriate emergency response personnel and equipment, including appropriate DOE emergency response assets, and liaison with offsite authorities for the recommendation of predetermined public protective actions.</i>	(3)
12.	<p><b>NOTIFICATIONS AND COMMUNICATIONS</b> Initial emergency notifications must be made promptly, accurately and effectively to workers and emergency response personnel/organizations, appropriate DOE/NNSA elements, and other federal, tribal, state, and local organizations and authorities. Accurate and timely follow-up notifications must be made when conditions change, when the emergency classification level (as an Alert, Site Area Emergency, General Emergency) is upgraded, or when the emergency is terminated. Continuous, effective, and accurate communication among response components and/or organizations must be reliably maintained throughout an Operational Emergency. [See also DOE O 151.C, Chapter III, paragraph 3d(4), Communications and Chapter VIII, Communications Requirements.]</p>	<p><b><u>NOTIFICATIONS AND COMMUNICATIONS</u></b> <i>Initial Emergency notifications must be made promptly, accurately, and effectively to all stakeholders. Follow-up notifications must be made when conditions change and when the Operational Emergency is terminated. DOE/NNSA sites/facilities/activities must accomplish the following:</i></p>	Attachment 3 11.
		<p><u>Notifications</u> <i>See paragraph 9 of this Attachment for requirements regarding notifications to workers.</i></p>	a. (1)
12.a	The contractor at all DOE/NNSA facilities must – provide prompt initial notification of workers, emergency response personnel, and response organizations, including DOE/NNSA elements and state, tribal, and local organizations;	<i>Provide prompt emergency notifications to emergency response personnel and response organizations.</i>	(2)
12.b.	Notify state and local officials and the cognizant field element Emergency Operations Center (EOC) and Headquarters Operations Center within <b>15 minutes</b> and all other organizations within 30 minutes of the declaration of an Alert, Site Area Emergency, or General Emergency;	<p><b><u>NOTIFICATIONS AND COMMUNICATIONS</u></b> <i>Notify local, state, Tribal, and federal authorities of classified Operational Emergencies within 15 minutes of categorization.</i></p>	Attachment 4 12.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
12.c.	Notify the cognizant field element EOC and Headquarters Operations Center within <b>30 minutes</b> of the declaration of an Operations Emergency not requiring classification [per CRD paragraph 11a(12)]; and	<i>Notify the Cognizant Field Element or appropriate Federal Manager, Headquarters Watch Office, and state, local, and tribal organizations within <b>30 minutes</b> of declaration of an Operational Emergency.</i>	(3)
12.d.	Notify local, state, and tribal organizations within <b>30 minutes</b> or as established in mutual agreements for declaration of an Operational Emergency not requiring classification [per CRD [paragraph 11a(12)].		
		<i>If the Emergency Operations System is activated for an incident not categorized as an Operational Emergency, the site/facility/activity must notify the Cognizant Field Element and Headquarters Watch Office within 30 minutes of the Emergency Operations System becoming operational in accordance with the emergency management plan.</i>	(4)
12.e	At a minimum, emergency notification to the Headquarters Operations Center must consist of a phone call providing as much information as is known at the time. The same information must be provided by e-mail or a fax, either immediately prior to or following the phone call. Information for initial notification includes as much as possible of the following:	<i>Emergency notification to the Headquarters Watch Office must consist of a phone call providing as much information as is known at the time and be provided electronically with confirmation. If information is unknown at the time of the report, specify so in reporting. The initial notification must include the -</i>	(5)
12.e.(1)	That an Operational Emergency has been declared and, if appropriate, the classification of the emergency;		
12.e.(2)	The description of the emergency;	<i>Description of the emergency</i>	(a)
12.e.(3)	The date and time the emergency was discovered;	<i>Date and time emergency was discovered or terminated</i>	(b)
12.e.(4)	The damage and casualties;	<i>Damage and casualties</i>	(c)
12.e.(5)	Whether the emergency has stopped other facility/site operations or program activities;		
12.e.(6)	The protective actions taken and/or recommended;	<i>Protective actions implemented</i>	(d)
12.e.(7)	The notifications made;		
12.e.(8)	The weather conditions at the scene of the emergency;		

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Potential impacts</i>	(e)
		<i>Agencies involved</i>	(f)
12.e.(9)	The level of any media interest at the scene of the emergency or at the facility/site; and	<i>Level of public/media attention</i>	(g)
12.e.(10)	The contact information of the DOE or NNSA on-scene point of contact.	<i>Contact information</i>	(h)
12.f	Provide for continuing effective communication among response organizations throughout an emergency.	<i>Communications. Provide for continuing effective communications among response organizations throughout an emergency.</i>	Attachment 3 11.b.(a) <i>Should be 11.b.(1)</i>
12.g	Establish effective communications methods between event scene responders, emergency managers, and response facilities.	<i>Provide for communication methods among on-scene responders, emergency managers, and response facilities.</i>	11.b.(b) <i>Should be 11.b.(2)</i>
		<i>Establish provisions to provide updates to workers during an emergency.</i>	11.b.(d) <i>Should be 11.b.(4)</i>
		<i>Initiate communication checks on classified and unclassified communications systems used for initial notification of the Headquarters Watch Office annually.</i>	11.b.(e) <i>Should be 11.b.(5)</i>
		<i>Ensure communications among response facilities, field response elements, and offsite command centers by providing a common operating picture of the emergency response and shared situational awareness among all teams. This must be accomplished by enabling access to unclassified emergency response information, such as notification forms, emergency status updates, plume projections, significant events data, and field monitoring data.</i>	11.b.(f) <i>Should be 11.b.(6)</i>
12.h.	Forward emergency status reports to the next-higher Emergency Management Team on a continuing basis until the emergency is terminated.	<i>Provide updates to Headquarters based upon the emergency conditions and/or as directed by Headquarters.</i>	11.b.(c) <i>Should be 11.b.(3)</i>
12.i.	Each activated Emergency Management Team must submit a Final Report on the emergency response to the Emergency Manager for submission to the Director, Office of Emergency Operations, following termination of emergency response, and in conjunction with the Final Report (see DOE M 231.1-2).	<i>For an Operational Emergency, submit the after action report to the Cognizant Field Element Manager or appropriate Federal Manager for further dissemination to the Associate Administrator, Office of Emergency Operations, and Program Secretarial Officer(s). This report</i>	Attachment 3 13.c.(2)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
DOE O 232.2 Attachment 4	Significance Category OE Categorize: ASAP Prompt Notification: 30 min (15 min if further classified) Written Notification: COB next business day not to exceed 90 hours Final Report: 45 calendar days	<i>may be done in conjunction with the Final Occurrence Report in accordance with DOE O 232.2, Occurrence Reporting and Processing of Operations Information.</i>	
12.j.	Review all reports and releases for classified or unclassified controlled information (e.g., Unclassified Controlled Nuclear Information) prior to being provided to personnel not authorized access to such information, entered into databases not authorized for such information, or transmitted using non-secure communications equipment.		
13.	<b>CONSEQUENCE ASSESSMENT</b> Estimates of on-site and off-site consequences of actual or potential releases of hazardous materials must be computed and assessed correctly and in a timely manner throughout an emergency. Consequence assessments must be: integrated with emergency classification and protective action decision-making; incorporated with facility and field indications and measurements; and coordinated with off-site agencies. [See DOE O 151.1C, Chapter IV, paragraph 3.b(5), Consequence Assessment.] The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must establish provisions to assess the potential or actual on-site and off-site consequence of an emergency.	<b><u>CONSEQUENCE ASSESSMENT</u></b> <i>DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Material Program must compute and correctly assess in a timely manner throughout the emergency the estimates of onsite and offsite consequences of actual or potential releases of hazardous materials that consider site specific characteristics (i.e., topography, meteorology). These DOE/NNSA sites/facilities/activities must accomplish the following.</i>  <i>Establish provisions to conduct consequence assessment that is –</i>	Attachment 4 10.  (a)
13.a.(1)	Consequence assessments must –be timely throughout the emergency;		
13.a.(2)	Be integrated with the emergency classification and protective action process;	<i>Integrated with emergency classification and protective action decision-making;</i>	(1)
13.a.(3)	Incorporate monitoring of specific indicators and field measurements; and	<i>Incorporated with facility and field indications and measurements, as required; and</i>	(2)
13.a.(4)	Be coordinated with federal, state, local and tribal organizations.	<i>Coordinated with offsite agencies.</i>	(3)
		<i>Establish provisions to conduct a timely initial assessment with the worst-case source term from the EAL using current meteorological conditions and as information becomes available, the actual source term based on known incident conditions from observations and indicators using current meteorological conditions for onsite and offsite consequences.</i>	Attachment 4 10.b.
13.b.	If the facility has the potential for an Operational Emergency classified as a General Emergency, the facility/site must have	<i>Maintain the capability to use the National Atmospheric Release Advisory Center c.as part of near real-time</i>	Attachment 4 10.c.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	connectivity to NARAC capabilities and procedures to use the NARAC capability effectively as part of near real-time consequence assessment activities for the mode (primary, backup, corroborating) selected by facility.	<i>consequence assessment activities for the mode (primary, backup, corroborating) selected by the site/facility/activity.</i>	
13.c.	If the facility has the potential for an Operational Emergency classified as a Site Area Emergency, the facility/site must have procedures in place to activate or request NARAC capabilities and must be able to use those capabilities as part of near real-time consequence assessment activities.		
13.d.	All DOE/NNSA facilities/sites that have access to NARAC or have procedures in place to activate or request NARAC capabilities must ensure that facility/site meteorological data and information on source terms for actual or potential releases of hazardous materials to the atmosphere are available or can be made available to NARAC in a timely manner to facilitate near real-time computations.		
		<i>Maintain consequence assessment and atmospheric dispersion modeling resources with the capability to –</i>	<i>Attachment 4 10.d.</i>
		<i>Conduct timely initial assessment by producing a plume projection product for the worst-case and actual source term described in paragraph 10b above;</i>	(1)
		<i>Indicate the distance to which PAC is exceeded to aid in protective action decision-making for workers and first responders and to establish the basis for initial field monitoring activities;</i>	(2)
		<i>Conduct continuous ongoing assessment for the duration of the emergency as additional information (e.g. field data, source term, etc.) becomes available; and</i>	(3)
		<i>Maintain field monitoring capabilities to perform field monitoring activities to confirm the plume boundaries.</i>	(4)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
14.	<p><b>PROTECTIVE ACTIONS AND REENTRY</b>  Protective actions must be promptly and effectively implemented or recommended for implementation, as needed, to minimize the consequences of emergencies and to protect the health and safety of workers and the public. Protective actions must be implemented individually or in combination to reduce exposures to a wide range of hazardous materials. Protective actions must be reassessed throughout an emergency and modified as conditions change. Reentry activities must be planned, coordinated, and accomplished properly and safely. [See also DOE O 151.1C, Chapter III, paragraph 3d(5) and Chapter IV, paragraph 3b(6), Protective Actions.]</p>	<p><b><u>PROTECTIVE ACTIONS</u></b>  <i>DOE/NNSA sites/facilities/activities must identify protective actions commensurate for the potential hazards of the site/facility/activity and maintain procedures for prompt issuance of protective actions to workers. Protective actions must be predetermined and serve to minimize emergency-related consequences and maximize life safety and health. DOE/NNSA sites/facilities/activities must accomplish the following.</i></p>	Attachment 3 9.
14.a.(1)	The contractor at all DOE/NNSA facilities must—develop procedures to implement the separate protective actions of evacuation and sheltering of employees;	<i>Develop pre-determined protective actions for hazards/threats identified in the all hazards planning basis.</i>	Attachment 3 9.a.
		<i>Develop a process to issue protective actions.</i>	Attachment 3 9.b.
14.a.(2)	Develop a procedure to account for employees after emergency evacuation has been completed;	<i>Develop a procedure to account for employees.</i>	Attachment 3 9.c.
		<i>Consider whether additional protective actions are needed for severe events, such as self-help instructions when the site/facility/activity is isolated from outside response assistance and evacuation of the site/facility/activity when conditions are deteriorating.</i>	Attachment 3 9.d.
		<p><b><u>PROTECTIVE ACTIONS</u></b>  <i>In addition to the protective action requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Material Program must also accomplish the following.</i></p>	Attachment 4 9.
		<i>Identify predetermined onsite protective actions and offsite protective action recommendations consistent with the hazard (internal vs. external exposure) and duration of the release (short vs. long) based upon the results of EPHAs.</i>	a.
		<i>Identify and evaluate incidents in which combinations of protective actions for varying facilities/activities may apply. Identify authorities for the lifting or adjustment of protective actions, once protective actions have been taken.</i>	b.
		<i>Identify actions that may be taken to increase the effectiveness of protective actions, such as shutdown of</i>	e.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>heating, ventilation, and air conditioning during sheltering-in-place.</i>	
14.a.(3)	Ensure the protection of workers, covered by 29 CFR 1910.120, involved in response and clean-up.		
14.b.	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also predetermine protective actions for on-site personnel and the public, and must include —		
14.b.(1)	Methods for controlling, monitoring, and maintaining records of personnel exposures to hazardous materials;	<i>Establish methods for controlling, monitoring, and maintaining records of personnel exposures to hazardous materials.</i>	c.
14.b.(2)	Procedures to implement the separate protective actions of evacuation and sheltering of employees;		
14.b.(3)	Methods for controlling access to contaminated areas and for decontaminating personnel or equipment exiting the area;	<i>Establish methods for controlling access to contaminated areas and for decontaminating personnel or equipment exiting the area.</i>	d.
14.b.(4)	Actions that may be taken to increase the effectiveness of protective actions [i.e., heating, ventilation, and air conditioning (HVAC) shutdown during sheltering];		
14.b.(5)	Methods for providing timely recommendations to appropriate state, tribal, or local authorities of protective actions, such as sheltering, evacuation, relocation, and food control;		
14.b.(6)	Specific protective action criteria, based on the Base Order, paragraph 4a(14), for use in protective action decision making.		
15	<p><b>EMERGENCY MEDICAL SUPPORT</b></p> <p>Medical support for contaminated or injured personnel must be planned and promptly and effectively implemented. Arrangements with off-site medical facilities to transport, accept, and treat contaminated, injured personnel must be documented. [See also DOE O 151.1C, Chapter III, paragraph 3d(6) and Chapter IV, paragraph 3b(7), Medical Support; and DOE O 440.1A, <i>Worker Protection Management for DOE Federal and Contractor Employees</i>, dated 3-27-98.</p>	<p><b><u>EMERGENCY MEDICAL SUPPORT</u></b></p> <p><i>DOE/NNSA sites/facilities/activities must accomplish the following:</i></p>	Attachment 3 6.
15.a.(1)	The contractor at all DOE/NNSA facilities must—provide medical treatment and planning for mass casualty situations. [See also DOE O 440.1A.]	<i>Conduct planning for medical treatment for incidents identified in the all hazards planning basis (e.g., mass casualty situations, treatment of field and first responders);</i>	a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
15.a.(2)	Coordinate in advance the sharing of patient information between on-site and off-site health care providers during emergencies, consistent with the requirements of Health Insurance Portability and Accountability Act of 1996 [42 USC 300].	<i>Establish provisions for sharing of patient information between onsite and offsite health care providers during emergencies, consistent with the requirements of the Health Insurance Portability and Accountability Act (42 USC 300).</i>	b.
15.b.(1)	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also—Provide medical support for workers contaminated by hazardous material [See also DOE O 440.1A.].	<i>For sites/facilities/activities containing hazardous materials, document agreements with medical facilities to accept and treat contaminated, injured personnel; including transportation using air ambulance providers.</i>	c.
15.b.(2)	Document arrangements with on-site and off-site medical facilities to accept and treat contaminated, injured personnel.		
16	<b>EMERGENCY PUBLIC INFORMATION</b> Accurate, candid, and timely information must be provided to workers, the news media, and the public during an emergency to establish facts and avoid speculation. Emergency public information efforts must be coordinated with DOE and NNSA (if appropriate); state, local, and tribal governments; and federal emergency response organizations, as appropriate. Workers and the public must be informed of emergency plans and planned protective actions before emergencies. [See also DOE O 151.1C, Chapter IX, Public Affairs Policy and Planning Requirements.]	<b><u>EMERGENCY PUBLIC INFORMATION</u></b> <i>DOE/NNSA sites/facilities/activities must provide accurate, candid, and timely information to workers, the media, and the public during an emergency. DOE/NNSA sites/facilities/activities must accomplish the following:</i>  <i>Establish and maintain an emergency public information program consistent with the all-hazards planning basis</i>	Attachment 3 12.  a.
16.a.	The contractor at all DOE/NNSA facilities must prepare an Emergency Public Information Plan. The same plan can cover multiple facilities on a site.	<i>Document the emergency public information program in an emergency public information plan or in the emergency management plan. This plan must include -</i>	b.
16.a. (1)(a)	The plans must provide— identification of personnel, resources, facilities, and coordination procedures necessary to provide emergency public information;	<i>Identification of personnel, resources, and facilities necessary to support emergency public information activities to include identification of a Public Information Officer(s) who will interact with the media during emergencies.</i>	(1)
		<i>Provisions for coordination of information to be released during an emergency.</i>	(2)
16.a. (1)(b)	A program for training and exercises of personnel who will interact with the media;	<i>Identification of training and drills for personnel who will interact with the media.</i>	(5)
16.a. (1)(c)	A methodology for informing workers and the public of DOE/NNSA emergency plans and protective actions, before and during emergencies;		
16.a. (1)(d)	Coordination of public information efforts with state, local, and tribal governments, and federal emergency response plans, as appropriate.	<i>Identification and monitoring of public information media to be used, such as web sites, social media, news releases, and news briefings.</i>	(3)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
16.a.(2)	The emergency public information program must have provisions in place to establish a media center. A media center is a designated location where cognizant field element and contractor personnel can conduct the necessary briefings and press conferences regarding an Operational Emergency at the facility.	<i>Identification of a location(s) for the necessary briefings and news conferences regarding the emergency.</i>	(4)
16.a.(3)	In situations involving classified or unclassified controlled information, the contractor must provide sufficient publicly releasable information to explain the emergency response and protective actions required for the health and safety of workers and the public.	<i>For situations involving classified or unclassified controlled information, provisions for information review by an appropriate official before release to ensure that no classified or unclassified controlled information is contained in the announcement.</i>	(7)
16.a.(4)	Public announcements in areas involving classified or unclassified controlled information must be reviewed by the appropriate official before release to ensure that no classified or unclassified controlled information is contained in the announcement.		
16.a.(5)	When directed by the cognizant field element, a contractor public information officer must be assigned to the emergency public information response team involved in a significant off-site response deployment.		
16.a.(6)	The DOE/NNSA (as appropriate) Director of Public Affairs and the Headquarters Emergency Manager must be informed of all DOE/NNSA emergency public information actions. These notifications must be made as soon as practicable.	<i>Provisions to coordinate with the Headquarters Emergency Operations Center Public Affairs Watch Officer and/or Office of Public Affairs on information released after the initial release. This includes information released through news releases and social media. The Headquarters Public Affairs Duty Officer or Office of Public Affairs may delegate this to local level dependent on the incident.</i>	(9)
16.a.(7)	Initial news releases or public statements must be approved by the cognizant field element official responsible for emergency public information review and dissemination. Following initial news releases and public statements, updates must be coordinated with the DOE/NNSA (as appropriate) Director of Public Affairs and the Headquarters Emergency Manager.	<i>Provisions for initial news releases or public statements to be approved by the Cognizant Field Element official responsible for emergency public information review and dissemination; and</i>	(8)
16.a.(8)	An emergency public information communications system must be established among DOE Headquarters, cognizant field element, and on-scene locations.	<i>Identification of provisions for coordination of public information activities with offsite first responders, state, local and tribal governments, and federal emergency response plans, as appropriate.</i>	(6)
16.b	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also have provisions in place to establish a Joint Information Center (JIC). A JIC is a working location, where multiple jurisdictions gather, process and disseminate public information during an emergency. The JIC must	<u><i>Joint Information Center</i></u> <i>Have provisions in place to establish a Joint Information Center (JIC) to serve as a working location, where multiple jurisdictions gather, process and disseminate public information during an emergency.</i>	Attachment 4 11.d.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
	<p>be adequately staffed with personnel trained to serve as spokesperson and news writer. Personnel must be assigned to the JIC to provide support in media services, public inquiry, media inquiry, JIC management and administrative activities, and media monitoring. Persons with technical expertise related to the emergency and with spokesperson training must also be assigned to the JIC. The JIC must be established, directed, and coordinated by the senior cognizant field element public affairs manager or a designee.</p>		
GUIDE	<p>DOE O 151.1C requires that each facility/site provide accurate, candid, and timely information about emergencies to workers and the public. The Hazardous Materials Program facility/site is expected to “ensure that an adequate public information program is established and maintained, commensurate with site hazards,” where an “adequate emergency public information program includes a JIC to provide resources to comply with the integrated, comprehensive Emergency Management System, commensurate with hazards, during an emergency.” This program should “provide support in media services, public inquiry, media inquiry, JIC management and administrative activities, and media monitoring.” To accomplish this, a facility should be designated as a JIC and located where controlled access by the media and public is facilitated. A consolidated JIC, with local, State, Tribal, and other Federal officials, is encouraged to present a coordinated response to the public.</p>	<p><i>Maintain equipment and systems to support JIC activities to include public inquiry, media inquiry, media monitoring, media support services, and management and administrative activities.</i></p>	(2)
		<p><i>Identify a location for the JIC outside the EPZ.</i></p>	(3)
16.c	<p>The contractor providing personnel for the Department emergency response assets (AMS, ARG, NARAC, FRMAC, NEST, RAP, REAC/TS) must apply the Emergency Public Information Plan during deployment of the assets.</p>		
		<p><b><i>EMERGENCY PUBLIC INFORMATION</i></b>  <i>In addition to the emergency public information requirements contained in Attachment 3, DOE/NNSA sites/facilities/activities with an Emergency Management Hazardous Materials Program must also maintain staff and expertise to perform emergency public information activities that include –</i></p>	Attachment 4 13.
		<p><i>Public and media inquiry activities;</i></p>	a.

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>Availability of personnel with technical expertise related to the emergency; and</i>	b.
		<i>Coordination and direction by the Cognizant Field Element Manager or appropriate Federal Manager public affairs manager or designee.</i>	c.
17	<b>TERMINATION AND RECOVERY</b> An Operational Emergency can be terminated only after a predetermined set of criteria has been met and termination has been coordinated with off-site agencies. Recovery from a terminated Operational Emergency must include: communication and coordination with state, tribal, and local government and other federal agencies; planning, management, and organization of the associated recovery activities; and ensuring the health and safety of the workers and public. [See also DOE O 151.1C, Chapter III, paragraph 5b and Chapter IV, paragraph 5b, Termination and Recovery.]	<b><u>TERMINATION AND RECOVERY</u></b> <i>DOE/NNSA sites/facilities/activities must:            Termination</i>	Attachment 3 13. a.
		<i>Establish a predetermined set of criteria for terminating an Operational Emergency. Emergency termination occurs when emergency response activities are terminated, the situation has been stabilized, potential threats to workers, the public, the environment, and national security have been characterized, conditions no longer meet established emergency categorization criteria, and it appears unlikely that conditions will deteriorate.</i>	(1)
17.a.(1)	The contractor at all DOE/NNSA facilities must—coordinate termination with state, tribal, and local agencies and organizations responsible for off-site emergency response and notification.	<i>Coordinate the decision to terminate the emergency with the responding organizations and the Cognizant Field Element or appropriate Federal Manager, as applicable.</i>	(2)
		<i>Notify the Headquarters Watch Office and other organizations previously notified when the emergency is terminated.</i>	(3)
		<u>Recovery</u> <i>Identify an organization that will address the actions necessary to restore the site/facility/activity to normal operations and document these actions in a plan.</i>	Attachment 3 13.b.
		<u>Post Incident Reporting</u> <i>Conduct an after action review of the performance of the Emergency Operations System when activated for an actual incident, event, or condition to identify lessons learned and/or corrective actions. If the Emergency Operations System was activated for an Operational Emergency, document the after review in an after action report.</i>	(1)

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
17.a.(2)	Establish criteria for resumption of normal operations (i.e., recovery). Recovery must also include provisions for investigation of the root cause(s) of the emergency and corrective action(s) to prevent recurrence in accordance with Departmental requirements (e.g., see DOE O 225.1A, <i>Accident Investigations</i> , dated 11-26-97, DOE O 231.1A, <i>Environment, Safety, and Health Reporting</i> , with <i>Change 1</i> , dated 6-3-04, and DOE 5480.19, <i>Conduct of Operations Requirements for DOE Facilities</i> , with <i>Change 2</i> , dated 10-23-01).		
17.b.(1)	The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also—establish predetermined criteria for termination of emergencies;	<b><u>TERMINATION AND RECOVERY</u></b> <i>Predetermined criteria for termination of emergencies must be established.</i>	Attachment 3 14.a.
17.b.(2)	Have the means for estimating exposure to hazardous materials and for protecting workers and the general public from exposure during reentry and recovery activities;	<i>The means must exist for estimating exposure to hazardous materials and for protecting workers and the general public from exposure during reentry and recovery activities.</i>	b.
17.b.(3)	Develop recovery procedures that include dissemination of information to federal, state, tribal, and local organizations regarding the emergency and possible relaxation of public protective actions; planning for decontamination actions; establishment of a recovery organization; development of reporting requirements; and establishment of criteria for resumption of normal operations;	<i>Recovery procedures must include: dissemination of information to Federal, State, Tribal, and local organizations regarding the emergency and possible relaxation of public protective actions; planning for decontamination actions; establishment of a recovery organization; development of reporting requirements; and establishment of criteria for resumption of normal operations.</i>	c.
		<i>The decision to terminate an Operational Emergency classified as an Alert, Site Area Emergency, or General Emergency must be based on the perceived need for the ERO to remain fully active to monitor and manage the situation. The decision to terminate an Operational Emergency not requiring classification must be a formal announcement or formal acknowledgement that the situation is stabilized and that the response activity is ending or has been substantially scaled back.</i>	d.
17.b.(4)	Not downgrade emergencies, once categorized, to a lower significance category unless the original categorization was incorrect. An event determined to be an emergency will remain so until the emergency response is terminated. In general, the emergency classification (i.e., Alert, Site Area Emergency, General Emergency) should not be downgraded until termination of the event. However, emergency classification must be reviewed periodically to ensure the classification is commensurate with response activities.	<i>Emergencies, once categorized, must not be downgraded to a lower significance category unless the original categorization was incorrect. An event determined to be an emergency will remain so until the emergency response is terminated. In general, the emergency classification (i.e., Alert, Site Area Emergency, or General Emergency) should not be downgraded until termination of the event. However, emergency classification must be reviewed periodically to</i>	Attachment 3 8.c

ID	DOE ORDER 151.1C	DOE ORDER 151.1D	ID
		<i>ensure the classification is commensurate with response activities.</i>	