



FEMA

POSITION TASK BOOK FOR THE POSITION OF

**ALL-HAZARDS NATIONAL INCIDENT
MANAGEMENT SYSTEM (NIMS)
RADIOLOGICAL OPERATIONS SUPPORT
SPECIALIST (TYPE 1)**

RADIOLOGICAL OPERATIONS SUPPORT SPECIALIST (TYPE 1)

1. Competency: Assume position responsibilities

Description: Successfully assume the role of Radiological Operations Support Specialist (ROSS) and initiate position activities at the appropriate time according to the following behaviors.

1a. Behavior: Establish effective relationships with relevant personnel

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>1. Identify how the Advisory Team for Environment, Food, and Health can provide recommendations to support response:</p> <ul style="list-style-type: none"> ● Explain to an audience how Advisory Team interacts with jurisdictions to provide recommendations ● Explain to an audience how the ROSS staff interacts with the Advisory Team 	C, E, F, I, J, T		

1b. Behavior: Ensure readiness for assignment

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>2. Demonstrate a working knowledge of the basic functionality of and differences between advanced modeling tools:</p> <ul style="list-style-type: none"> ● Demonstrate a working knowledge of Hazard Prediction and Assessment Capability (HPAC), ● Visual Sample Plan (VSP), Turbo FRMAC, HotSpot and the RESRAD suite 	C, E, F, I, J, T		
<p>3. Demonstrate ability to interpret the full set of FRMAC data products for one of three scenarios—nuclear power plant (NPP) incident, radiological dispersal device (RDD) incident, or nuclear detonation (NucDet):</p> <ul style="list-style-type: none"> ● Provide after-action report detailing participation in exercise and execution of task 	C, E, F, I, J, T		
<p>4. Demonstrate ability to share information with responders and decision makers using Homeland Security Information Network (HSIN), WebEOC, spreadsheets and other common software:</p> <ul style="list-style-type: none"> ● Demonstrate a working knowledge of HSIN, WebEOC, spreadsheets and other common software 	C, E, F, I, J, T		
<p>5. Demonstrate an understanding that maps, atmospheric plume modeling, briefing products and technical reports can come from several sources:</p> <ul style="list-style-type: none"> ● Explain functions of IMAAC and types of information and products it provides ● Explain functions of NARAC and types of information and products it provides ● Explain functions of FRMAC and types of information and products it provides 	C, E, F, I, J, T		
<p>6. Demonstrate basic ability to explain Interagency Modeling and Atmospheric Assessment Center (IMAAC), National Atmospheric Release Advisory Center (NARAC) and Federal Radiological Monitoring and Assessment Center (FRMAC) data products:</p> <ul style="list-style-type: none"> ● Interpret and brief at least two data products to an audience 	C, E, F, I, J, T		

7. Demonstrate familiarity with using RadResponder: <ul style="list-style-type: none"> Secure a RadResponder login Demonstrate RadResponder account management functions: updating password and username, editing contact information and recovering a password Demonstrate ability to navigate to an event and use basic functionality: downloading data, navigating the map, and so on 	C, E, F, I, J, T		
8. Explain the difference between providing technical guidance and making recommendations: <ul style="list-style-type: none"> Describe how recommendations are alternatives derived from technical guidance 	C, E, F, I, J, T		
9. Explain the value to responders and decision makers of the standard IMAAC, NARAC and FRMAC products: <ul style="list-style-type: none"> Describe standard products that IMAAC, NARAC and FRMAC provide for various incidents Identify the data products' standard assumptions, layouts, features, information, and legends Recognize common questions that IMAAC, NARAC and FRMAC products can answer 	C, E, F, I, J, T		
10. Know the state authorities and systems responsible for radiological and nuclear (rad/nuc) emergency response: <ul style="list-style-type: none"> Identify the agency responsible for public and worker protection during rad/nuc emergencies in the state Establish mutual awareness with the radiation control program director and the agency responsible for public and worker protection during rad/nuc incidents 	C, E, F, I, J, T		
11. Secure access to a CMweb account: <ul style="list-style-type: none"> Demonstrate ability to log into and navigate CMweb 	C, E, F, I, J, T		

1c. Behavior: Successfully assume the role of ROSS and initiate position activities

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
12. Report to assigned site and supervisor, and receive briefing on role and position activities: <ul style="list-style-type: none"> Provide sign-in sheet from incident or exercise 	C, E, F, I, J, T		

1d. Behavior: Ensure that resources have availability, qualifications, and capabilities to complete assignment

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
13. Demonstrate ability to assess ROSS Strike Team members' qualifications and to deploy them according to their varying capabilities: <ul style="list-style-type: none"> Provide after-action report detailing participation in exercise and execution of task 	C, E, F, I, J, T		

2. Competency: Communicate effectively

Description: Use suitable communication techniques to share relevant information with appropriate personnel on a timely basis to accomplish objectives in a potentially rapidly changing environment.

2a. Behavior: Ensure the exchange of relevant information during briefings and debriefings

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>14. Demonstrate ability to identify opportunities to share information important to responders, incident managers, agencies and stakeholders during an incident:</p> <ul style="list-style-type: none"> ● Identify the right meetings/mechanisms to relay important information to responders, incident managers, agencies and stakeholders ● Demonstrate ability to communicate effectively with workers in the field and with senior leadership 	C, E, F, I, J, T		

2b. Behavior: Communicate incident priorities and operations

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>15. Evaluate the radiological characteristics of the scenario and relate the risks to responders and the public:</p> <ul style="list-style-type: none"> ● Evaluate the radiological characteristics of the scenario and relate the risks to responders and the public: ● Provide radiological perspectives to inform the Incident Action Plan (IAP) ● Provide radiological perspectives for incident briefings ● Provide content for Public Information Officer (PIO) messages ● Demonstrate capacity to appropriately engage with decision makers in all emergency support functions and incident command roles ● Demonstrate capacity to appropriately engage with decision makers at the highest levels of government 	C, E, F, I, J, T		

2c. Behavior: Effectively gather, produce, apply, distribute, and communicate information

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>16. Demonstrate ability to convey technical information to a nontechnical audience:</p> <ul style="list-style-type: none"> ● Given a topic related to the consequences of a rad/nuc incident, describe it in terms a sixth-grader could understand 	C, E, F, I, J, T		
<p>17. Demonstrate effective public interaction skills:</p> <ul style="list-style-type: none"> ● Display good eye contact ● Use effective, concise language ● Display proper body language ● Display self-awareness and ability to assess effectiveness of message delivery ● Display situational awareness and ability to adapt message to audience 	C, E, F, I, J, T		

<p>18. Provide just-in-time training for responders operating in a radiological environment:</p> <ul style="list-style-type: none"> ● Prepare responder training, including risk communication and how to view the radiological risk in the context of the overall hazard ● Deliver training to a group of responders preparing to deploy for a radiological incident 	<p>C, E, F, I, J, T</p>		
--	-----------------------------	--	--

2d. Behavior: Oversee production and distribution of information per established guidelines and assist recipient in understanding information

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>19. Demonstrate ability to effectively communicate risk to the public:</p> <ul style="list-style-type: none"> ● Identify resources available to help develop radiation risk/incident messages ● Demonstrate ability to convey technical information in a concise, nontechnical manner appropriate for the public ● Demonstrate ability to coordinate with appropriate jurisdictional representatives—such as PIO, radiation control staff, or the Incident Commander (IC)—to draft and distribute messages 	<p>C, E, F, I, J, T</p>		
<p>20. Demonstrate an understanding of the Environmental Protection Agency (EPA) Protective Action Guidance (PAG) and Protective Action Recommendations (PAR) in context, including overall levels of risk to workers and public for various incident types:</p> <ul style="list-style-type: none"> ● Recognize when protective actions may not correspond to recommended levels in the PAG Manual or map ● Recognize important considerations for PAG-based recommendations, including inputs, assumptions, and limitations 	<p>C, E, F, I, J, T</p>		
<p>21. Explain how to request map products and how to receive and distribute them:</p> <ul style="list-style-type: none"> ● Demonstrate a working knowledge of how to record and relay a request for, and receipt of a standard or custom IMAAC, NARAC or FRMAC product ● Record and relay a request for, and receipt of a standard or custom IMAAC, NARAC or FRMAC product 	<p>C, E, F, I, J, T</p>		
<p>22. Given a unique response or recovery concept, define a custom data product supporting the delivery of information about that concept:</p> <ul style="list-style-type: none"> ● Identify types of information to add to a data product or map (agricultural, special populations, local datasets, and so on) ● Describe the information that this specialized product communicates in a way that is useful to responders and decision makers ● Respond to difficult questions or requests that would result in a nonstandard interpretation and use of the product ● Demonstrate ability to advise on how to order a more specific or detailed data product to address incident questions or priorities ● Demonstrate ability to recognize when a technical specialist is required to brief audiences on a custom data product 	<p>C, E, F, I, J, T</p>		

<p>23. Interpret the Aerial Measuring System (AMS) products and the scientific understanding behind them:</p> <ul style="list-style-type: none"> ● Describe how the AMS can provide measurements of actual radioactivity over a wide area early in a response ● Explain how to contact the Department of Energy (DOE) Watch Office to request AMS assistance 	<p>C, E, F, I, J, T</p>		
---	-----------------------------	--	--

3. Competency: Ensure completion of assigned actions to meet identified objectives

Description: Identify, analyze, and apply relevant situational information and evaluate actions to complete assignments safely and meet identified objectives. Complete actions within established time frame.

3a. Behavior: Execute assigned tasks, assess progress, and make necessary adjustments

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>24. Demonstrate use of RASCAL to support response:</p> <ul style="list-style-type: none"> • Demonstrate proficient use of RASCAL or URI- RASCAL to support at least one exercise or incident • Provide after-action report detailing participation in exercise and execution of task 	C, E, F, I, J, T		
<p>25. Explain the purpose and functions of RESRAD-RDD:</p> <ul style="list-style-type: none"> • Describe the features of RESRAD-RDD that would benefit an RDD incident response • Explain who runs the RESRAD software and how the users share information 	C, E, F, I, J, T		
<p>26. Explain the purpose and functions of the Radiological Assessment System for Consequence Analysis (RASCAL) and the Unified RASCAL Interface (URI- RASCAL):</p> <ul style="list-style-type: none"> • Describe incidents and scenarios where RASCAL models are most useful • Explain basic RASCAL functions and the output sample information 	C, E, F, I, J, T		
<p>27. Explain the purpose of CMweb and introduce the resources available within the system:</p> <ul style="list-style-type: none"> • Find and manage data products provided in CMweb Events from IMAAC, NARAC and FRMAC • Find and review the Job Aids: 10-point monitoring, mission planning, Incident Command System (ICS) and Emergency Operations Center (EOC) • Find the Rapid Hazard Assessment Tool and run an improvised nuclear device (IND) model 	C, E, F, I, J, T		
<p>28. Manage assessment scientists engaging in multiple Turbo FRMAC analyses:</p> <ul style="list-style-type: none"> • Demonstrate ability to lead assessment scientists in use of Turbo FRMAC to answer ingestion pathway exposure and dose questions • Demonstrate ability to appropriately apply information from Turbo FRMAC ingestion pathway analysis to incident 	C, E, F, I, J, T		
<p>29. Manage others in using RadResponder for radiological response and situational awareness:</p> <ul style="list-style-type: none"> • Demonstrate ability to direct others in using RadResponder tools and procedures to ensure appropriate data for a common radiological operating picture and situational awareness • Demonstrate proficiency in using the full functionality of the RadResponder website, including mapping features, to direct others to generate and display a variety of data and overlays to support situational awareness 	C, E, F, I, J, T		

<p>30. Manage others in using RASCAL or URI-RASCAL for rad/nuc emergency consequence management:</p> <ul style="list-style-type: none"> ● For a wide range of decision-making needs, demonstrate the ability to guide assessment scientists in using RASCAL to generate appropriate models for the incident/exercise ● For a wide range of decision-making needs, demonstrate the ability to appropriately apply information from RASCAL analysis to the incident 	<p>C, E, F, I, J, T</p>		
<p>31. Manage others in using RESRAD- RDD for rad/nuc emergency consequence management:</p> <ul style="list-style-type: none"> ● For a wide range of decision-making needs, demonstrate the ability to lead assessment scientists in using RESRAD- RDD to answer questions ● For a wide range of decision-making needs, demonstrate the ability to appropriately apply information from RESRAD- RDD analysis to the incident 	<p>C, E, F, I, J, T</p>		
<p>32. Provide interpretation and guidance for complex or confusing instrument readings/results:</p> <ul style="list-style-type: none"> ● Demonstrate ability to apply data quality objectives to ensure reliable data ● Demonstrate ability to recognize when data requires additional validation ● Demonstrate ability to identify possible reasons for conflicting incident data 	<p>C, E, F, I, J, T</p>		
<p>33. Use RadResponder mobile app or website to support response:</p> <ul style="list-style-type: none"> ● Demonstrate proficient use of RadResponder during an incident or exercise ● Provide after-action report detailing participation in exercise and execution of task 	<p>C, E, F, I, J, T</p>		
<p>34. Use Turbo FRMAC to complete ingestion pathway analytical tasks:</p> <ul style="list-style-type: none"> ● Perform at least one ingestion pathway analytical task using Turbo FRMAC ● Coordinate with assessment scientists to complete at least one ingestion pathway analytical task using Turbo FRMAC 	<p>C, E, F, I, J, T</p>		

3b. Behavior: Make appropriate decisions based on analysis of gathered information

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>35. Integrate local and state capabilities with local, state, tribal, territorial, and Federal assets to meet incident objectives:</p> <ul style="list-style-type: none"> ● Coordinate with state and local jurisdictions in at least one exercise/incident to maintain a common radiological operating picture and situational awareness ● Coordinate with Federal assets supporting a local, state, tribal, or territorial response in at least one exercise/incident to maintain a common radiological operating picture and situational awareness 	<p>C, E, F, I, J, T</p>		

<p>36. Match multiple capabilities of local, state, tribal, territorial, and Federal emergency response/recovery assets to incident objectives:</p> <ul style="list-style-type: none"> ● Explain to an audience the main non-radiation assets available from the Federal government to support incident response ● Explain to an audience the main radiation subject matter expert assets available from the Federal government to support incident response 	<p>C, E, F, I, J, T</p>		
---	-------------------------	--	--

3c. Behavior: Gather, analyze, and validate information and make recommendations for setting priorities

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>37. Demonstrate ability to help the IC adjust responder dose guidelines for rescue operations involving large doses and vulnerable populations:</p> <ul style="list-style-type: none"> ● Demonstrate ability to clearly and concisely communicate implications of setting worker dose for lifesaving missions too low ● Identify appropriate alarm set points and dose alerts for lifesaving missions ● Explain when and why bodies such as the National Council on Radiation Protection and Measurements (NCRP), the ● International Atomic Energy Agency (IAEA) and the EPA sometimes recommend higher dose thresholds 	<p>C, E, F, I, J, T</p>		
<p>38. Demonstrate an understanding of the decision-making process for incident response:</p> <ul style="list-style-type: none"> ● Describe positions and agencies typically involved in decision-making for radiological incidents ● Explain to an audience how nontechnical factors (geographical, social and so on) can inform protective action decisions ● Provide highly detailed science- based guidance—appropriate for complex and potentially dangerous situations—to agencies typically involved in decision-making for radiological incidents 	<p>C, E, F, I, J, T</p>		
<p>39. Explain the capabilities of primary radiological assets such as Department of Defense (DOD) National Guard Civil Support Teams (CST), CBRN Enhanced Response Force Packages (CERFP), Air Force Radiation Assessment Teams (AFRAT), and so on:</p> <ul style="list-style-type: none"> ● For decision makers, describe when to request and activate National Guard assets and how best to use them ● Describe the National Guard assets important to radiological incident response, including their mission, capabilities, footprint and expected response times 	<p>C, E, F, I, J, T</p>		
<p>40. Explain the capabilities of primary radiological DOE assets:</p> <ul style="list-style-type: none"> ● For decision makers, describe when to request and activate DOE assets and how best to use them ● Describe to an audience the DOE assets important to radiological incident response—Radiological Assistance Program (RAP), AMS, FRMAC, NARAC, and so on—including their mission, capabilities, footprint and expected response times 	<p>C, E, F, I, J, T</p>		

<p>41. For a large incident or one posing a unique threat, scale and adjust guidelines for Personal Protective Equipment (PPE), dose, population monitoring, and zone definitions and controls to balance resources with responder risk and response benefit:</p> <ul style="list-style-type: none"> ● Demonstrate ability to use the ROSS Toolkit to recommend adjustments to guidance or thresholds when resources are scarce ● Demonstrate ability to identify unique considerations important for large-scale or severe radiological incidents ● Demonstrate ability to provide information and references to guide the creation or adjustment of dose recommendations or PPE requirements 	<p>C, E, F, I, J, T</p>		
<p>42. Integrate local and state capabilities with DOE assets to meet incident objectives:</p> <ul style="list-style-type: none"> ● Coordinate with state and local jurisdictions to help request DOE assets in three or more major full-scale exercises or real-life incidents ● Communicate directly with multiple DOE assets in three or more major full-scale exercises or real-life incidents to request and receive information and products important for incident response 	<p>C, E, F, I, J, T</p>		

3d. Behavior: Gather, update, and apply situational information

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>43. Demonstrate the ability to coordinate with appropriate release and modeling resources to meet incident objectives:</p> <ul style="list-style-type: none"> ● Demonstrate direct coordination with IMAAC, NARAC or other release/modeling resources during three or more major full-scale exercises or real-life incidents ● Demonstrate proficiency in describing the typical atmospheric/environmental release and transport modeling methods, including underlying assumptions, for three or more major full-scale exercises or real-life incidents 	<p>C, E, F, I, J, T</p>		
<p>44. Demonstrate the ability to distinguish relevant information from non-mission-critical information:</p> <ul style="list-style-type: none"> ● Describe methods for sorting through large amounts of radiological data to identify information relevant to specific questions or priorities 	<p>C, E, F, I, J, T</p>		
<p>45. Demonstrate the ability to recognize release/modeling resources most appropriate for a given scenario:</p> <ul style="list-style-type: none"> ● Identify differences between several modeling products, including HotSpot, RASCAL, and IMAAC, NARAC, and FRMAC resources, and explain why one might apply best to the situation 	<p>C, E, F, I, J, T</p>		
<p>46. Support the collection of actionable, verified data and the entry of data to RadResponder or other data collection systems:</p> <ul style="list-style-type: none"> ● Demonstrate technological knowledge required to make data available for further analysis and product development ● Enter data via the RadResponder mobile app and directly into the website ● Assess data entered into RadResponder for validity per jurisdictional procedures and designate the assessment of data points 	<p>C, E, F, I, J, T</p>		

4. Competency: Fulfill position functions

Description: Perform functions specific to the ROSS position.

4a. Behavior: Demonstrate core position skills

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
<p>47. Demonstrate an understanding of guidance and reference documents important for NPP release, RDD, and NucDet incidents:</p> <ul style="list-style-type: none"> ● Describe the key guidance documents related to an NPP release response ● Describe the key guidance documents related to an RDD response ● Describe the key guidance documents related to a NucDet response 	C, E, F, I, J, T		
<p>48. Demonstrate the ability to lead a ROSS Strike Team engaged in NPP release, RDD or NucDet response and recovery within the incident management structure:</p> <ul style="list-style-type: none"> ● Provide after-action report detailing participation in exercise and execution of task 	C, E, F, I, J, T		
<p>49. Demonstrate the ability to research and explain capabilities of major local, state, tribal, territorial, and Federal assets as they relate to NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Describe the main assets available in state and local jurisdictions for radiological incidents ● Describe the main subject-matter-expert assets available from the Federal government for radiological incidents ● Describe the main non-radiation subject-matter- expert assets available from the Federal government to support incident response ● Identify references describing various assets and resources 	C, E, F, I, J, T		
<p>50. Describe how monitoring requirements for chronic environmental exposures are similar in their characteristics and methodologies for NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Identify the most significant environmental consequences of an NPP release ● Identify the most significant environmental consequences of an RDD incident ● Identify the most significant environmental consequences of a NucDet ● Describe environmental assessments for human health protection common to NPP release, RDD and NucDet incidents 	C, E, F, I, J, T		
<p>51. Describe the appropriate radiological instrumentation and environmental measurement data collection techniques for a NucDet:</p> <ul style="list-style-type: none"> ● Identify the media samples appropriate for assessing dose pathways for a NucDet ● Identify the analytical instrumentation for environmental samples obtained following a NucDet ● Identify quality assurance controls for sampling and laboratory analysis of NucDet samples ● Identify modifications of routine environmental sampling and analysis procedures that may be necessary following a NucDet 	C, E, F, I, J, T		

<p>52. Describe the appropriate radiological instrumentation and environmental measurement data collection techniques for an RDD incident:</p> <ul style="list-style-type: none"> ● Identify the media samples appropriate for assessing dose pathways for an RDD incident ● Identify the analytical instrumentation for environmental samples obtained following an RDD incident ● Identify quality assurance controls for sampling and laboratory analysis of RDD samples ● Identify modifications of routine environmental sampling and analysis procedures that may be necessary following an RDD incident 	<p>C, E, F, I, J, T</p>		
<p>53. Describe the appropriate radiological instrumentation and environmental measurement data collection techniques for NPP release incidents:</p> <ul style="list-style-type: none"> ● Identify the media samples appropriate for assessing dose pathways for an NPP release ● Identify the analytical instrumentation for environmental samples obtained following an NPP release ● Identify quality assurance controls for sampling and laboratory analysis of NPP release samples ● Identify modifications of routine environmental sampling and analysis procedures that may be necessary following an NPP release 	<p>C, E, F, I, J, T</p>		
<p>54. Differentiate between the radiological risks of NPP release, RDD, and NucDet incidents:</p> <ul style="list-style-type: none"> ● Identify the most likely critical radiological effects of an NPP release, an RDD and a NucDet ● Identify the response objectives related to pathways to human exposure for an NPP release, an RDD and a NucDet ● Describe the variations in incident scale between an NPP release, an RDD and a NucDet 	<p>C, E, F, I, J, T</p>		
<p>55. Identify the dose calculations appropriate to NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Describe the key internal dose calculations and consequences for NPP release, RDD and NucDet incidents ● Describe the key external dose calculations and consequences for NPP release, RDD and NucDet incidents ● Describe recommendations related to dose consequences to achieve response objectives for NPP release, RDD and NucDet incidents ● Describe quality assurance methods to best match dose measurements to incident objectives 	<p>C, E, F, I, J, T</p>		
<p>56. Manage multiple ROSS Strike Teams engaged in different radiological incident management functions for the most geographically widespread and resource-intensive response and recovery operations:</p> <ul style="list-style-type: none"> ● Provide after-action report detailing participation in exercise or incident 	<p>C, E, F, I, J, T</p>		
<p>57. Recognize the appropriate IMAAC, NARAC, and FRMAC data products for NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Obtain specialized data products from CMweb for NPP release, RDD and NucDet incidents ● Describe the unique characteristics of the CMweb data products for NPP release, RDD and NucDet incidents 	<p>C, E, F, I, J, T</p>		

<p>58. Recognize the critical role of dose-related recordkeeping during NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Describe the types of dose-related records response teams obtain and maintain during NPP release, RDD and NucDet incidents ● Identify the uses of dose-related records for individual, group and incident management purposes ● Describe methods to ensure and preserve the quality and integrity of dose-related records 	<p>C, E, F, I, J, T</p>		
<p>59. Recognize the potential health impacts of a NucDet:</p> <ul style="list-style-type: none"> ● Describe the physical, environmental, societal and human effects of a NucDet ● Explain to an audience the specific sources of radiation exposure in the early and later phases of a NucDet ● Explain to an audience the complexities of minimizing or mitigating the physical, environmental, societal and human effects of a NucDet in times of scarce resources and austere conditions ● Describe the roles ROSS staff can play in minimizing or mitigating the physical, environmental, societal and human effects of a NucDet 	<p>C, E, F, I, J, T</p>		
<p>60. Recognize the potential health impacts of an NPP release:</p> <ul style="list-style-type: none"> ● Describe the physical, environmental, societal and human effects of an NPP release ● Explain to an audience the specific sources of radiation exposure in the early and later phases of an NPP release ● Describe the roles ROSS staff can play in minimizing or mitigating the physical, environmental, societal and human effects of an NPP release 	<p>C, E, F, I, J, T</p>		
<p>61. Recognize the potential health impacts of an RDD incident:</p> <ul style="list-style-type: none"> ● Describe the physical, environmental, societal and human effects of an RDD incident ● Explain to an audience the specific sources of radiation exposure in the early and later phases of an RDD incident ● Describe the roles ROSS staff can play in minimizing or mitigating the physical, environmental, societal and human effects of an RDD incident 	<p>C, E, F, I, J, T</p>		
<p>62. Recognize the variety of environmental monitoring methods appropriate for assessing exposure pathways following NPP release, RDD and NucDet incidents:</p> <ul style="list-style-type: none"> ● Describe the sampling priorities and analysis methods for samples obtained following NPP release, RDD and NucDet incidents ● Explain to an audience the primary exposure pathways resulting in dose to humans from NPP release, RDD and NucDet incidents 	<p>C, E, F, I, J, T</p>		

<p>63. Recognize the varying levels of radiological controls in the ROSS Toolkit for NPP release, RDD and NucDet incident response:</p> <ul style="list-style-type: none"> ● Describe the ROSS Toolkit controls related to perimeters and zones for NPP release, RDD and NucDet incident response ● Describe the ROSS Toolkit controls related to worker safety for NPP release, RDD and NucDet incident response ● Describe the ROSS Toolkit considerations and criteria related to shelter and evacuation for NPP release, RDD and NucDet incident response ● Describe the ROSS Toolkit considerations and criteria related to population monitoring for NPP release, RDD and NucDet incident response ● Describe other rad/nuc emergency response resources in the ROSS Toolkit useful for NPP release, RDD and NucDet incidents 	<p>C, E, F, I, J, T</p>		
---	-------------------------	--	--