



ORIA Radiological Emergency Response Team

Concept of Operations Plan

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OFFICE OF RADIATION AND INDOOR AIR
RADIOLOGICAL EMERGENCY RESPONSE TEAM
CONCEPT OF OPERATIONS PLAN

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U.S. Environmental Protection Agency
Office of Radiation and Indoor Air
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FORWARD/APPROVAL

We hereby endorse for use by the U.S. Environmental Protection Agency (EPA) Office of Radiation and Indoor Air (ORIA) Radiological Emergency Response Team (RERT) this Concept of Operations Plan (ConOps). It represents the ORIA revised concept of operations for responding to actual or potential radiological releases to the environment. This plan will be used as a guide for maintaining readiness to respond to radiological emergencies in support of EPA responsibilities for protecting public health and the environment.

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Date

**Review of this plan will take place two (2) years
after its initial issuance and every five (5) years thereafter.**

Revision History

Rev. No.	Rev. Date	Revision	Responsible Official/Author
1		<p>Revision Issue Revision of ORIA Radiological Emergency Response Program Concept of Operations Plan (May 2006).</p> <p>Retitled the document to “ORIA Radiological Emergency Response Team Concept of Operations Plan” to emphasize the response function of the Radiological Emergency Response Team (RERT).</p> <p>Ensured acronyms were consistent with 2020 ORIA organization.</p> <p>Deleted the use of the title “RERT Commander” and delegated the assigned duties to RERT Management personnel (RERT Coordination Team and RERT Response Leads) under the present ORIA organization.</p> <p>Streamlined the response overview to emphasize the use of Standard Operating Procedures and best practices.</p> <p>Provided example Incident Command System positions and their performance references that may be filled by RERT personnel during a radiological incident.</p>	W. Prioleau, CREM

EPA MISSION

EPA's mission is to protect human health and the environment. Specially, a primary objective under EPA's FY22-26 Strategic Plan is to "Prepare for and Respond to Environmental Emergencies"

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DISCLAIMER

The RERT ConOps represents EPA's current programmatic and operational plans for responding to radiological emergencies based on existing statutory authorities and obligations. The ConOps does not establish legal authorities, obligations, or any other binding rights and duties and is intended solely as guidance. The ConOps does not impose any legal obligations or duties on any party other than those that exist under current law.

I. INTRODUCTION

The U.S. Environmental Protection Agency's (EPA) Office of Radiation and Indoor Air (ORIA) Radiological Emergency Response Team (RERT) Concept of Operations Plan (ConOps) provides RERT personnel, EPA management, EPA Regions and their Superfund and Emergency Management Divisions, and other partner organizations with an overview of the process by which ORIA will provide a coordinated, and effective response to radiological/nuclear incidents.

A radiological/nuclear incident is an occurrence, natural or manmade, involving radioactive materials or radiation that necessitates a response to protect life or property. The response to an incident is those capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

This ConOps is not intended to provide specific procedures for responding to a radiological incident; but, rather, it provides a roadmap to those activities that must be accomplished during the response.

The ConOps is consistent with the EPA Radiological Emergency Response Plan (EPA-RERP, January 12, 2017), which describes the details of EPA's role in radiological emergency preparedness and response within the context of the Nation's approach to emergency response as described in and in support of the National Response Framework (NRF), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Stafford Act, the Public Health Service Act (PHSA), the Atomic Energy Act (AEA), the EPA National Approach to Response (NAR), policy directives, agreements, other statutes, and executive and EPA orders. In keeping with the approach to radiological emergency response throughout the federal government, EPA utilizes the Incident Command System (ICS) structure under the National Incident Management System (NIMS) as detailed in the EPA Incident Management Handbook (IMH), Incident Command System (ICS), April 2020.

This RERT ConOps supplements the information in the EPA-RERP and provides an implementation guide to the RERT response. The RERT is a multidisciplinary team of scientists, engineers, health physicists (radiation experts), communications experts, and laboratory staff, whose job it is to support EPA regional, federal, state, local, tribal, and territorial response efforts during all stages of a radiological response. RERT personnel are from the National Center for Radiation Field Operations (NCRFO), the National Analytical Radiation Environmental Laboratory (NAREL), and the Radiation Protection Division (RPD) with support from Regional RERT Liaisons as described in Appendix A.

This document supersedes the May 2006 ORIA Radiological Emergency Response Program ConOps.

II. RADIOLOGICAL EMERGENCY RESPONSE TEAM DESCRIPTION

2.1 Overview

The RERT responds to incidents involving radioactive materials and radiation. The RERT is staffed by personnel from ORIA's NCRFO, NAREL, and RPD (see Appendix A for program descriptions). An organizational chart is provided in Figure 1.

The RERT works closely with several EPA programs as well as other federal, state, local, tribal, and territorial government response efforts before, during, and following a radiological/nuclear incident. The RERT responds by providing support in various forms:

- Technical advice and assistance to prevent or minimize threats to public health and the environment.
- Advice on protective measures to ensure public health and safety.
- Assessment of dose, risk, and impact upon public health and the environment.
- Monitoring, sampling, laboratory analysis, data quality assurance, assessment, and interpretation to evaluate and characterize environmental impacts.
- Data collection support through the use of the RadResponder Network, or other approved platforms, to record, share, and aggregate radiological data.
- Environmental fate and transport modeling.
- Public information support.
- Technical advice and planning for containment, cleanup, restoration, and recovery following a radiological incident.

In addition to providing technical advice and assistance to federal, state, local, tribal, and territorial authorities, the RERT deploy the following types of equipment and services as part of its response:

- Field monitoring and sampling services.
- Handheld survey equipment, including alpha, beta, gamma, and neutron detection instruments; air sampling equipment; exposure rate and dose rate instruments; and field gamma spectroscopy.
- Laboratory services.
- Data analysis and assessment.
- Laboratory and emergency management vehicles, including the Mobile Command Post (MCP), Mobile Environmental Radiation Laboratory (MERL), and Sample Preparation Laboratory (SPL), and specialized mobile platforms equipped to scan for gamma radiation in the environment.
- Satellite and internet-based communication capabilities to help keep RERT personnel in contact with other locations and agencies.

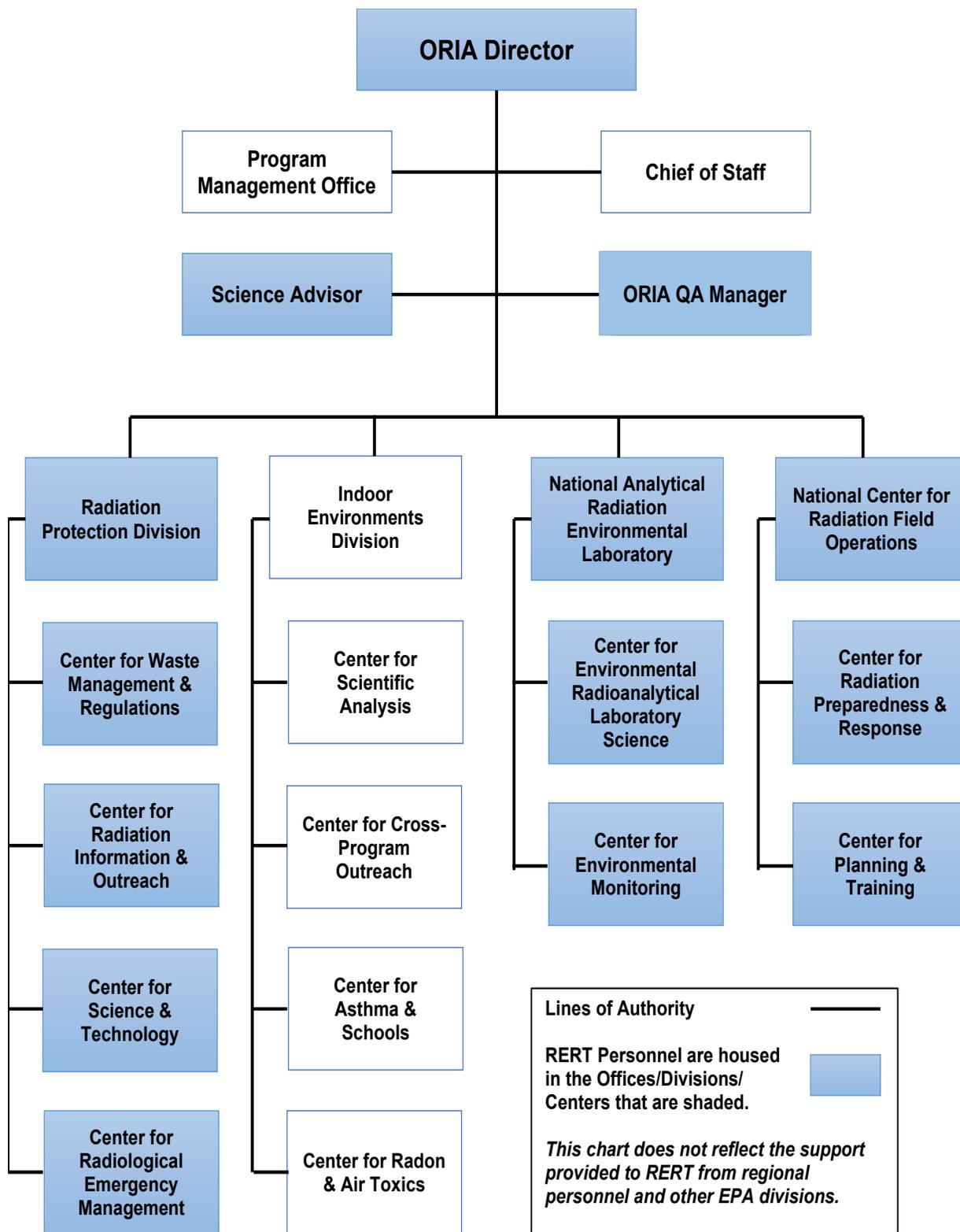


Figure 1: RERT Organization Chart

2.2 RERT Management

RERT Management includes:

- ORIA Director
- National Center for Radiation Field Operations
 - Director, NCRFO
 - Director, Center for Radiation Preparedness and Response (CRPR)
 - Director, Center for Planning and Training (CPT)
- National Analytical Radiation Environmental Laboratory
 - Director, NAREL
 - Director, Center for Environmental Monitoring (CEM)
 - Director, Center for Environmental Radioanalytical Laboratory Science (CERLS)
- Radiation Protection Division
 - Director, RPD
 - Director, Center for Radiological Emergency Management (CREM)
 - Director, Center for Radiation Information and Outreach (CRIO)

The ORIA, NCRFO, NAREL, and RPD Directors are considered RERT Senior Management.

RERT Management personnel have common duties to maintain RERT readiness, including:

- Identification of RERT needs.
- Review of emergency response products (Standard Operating Procedures (SOPs), checklists, job aids, etc.).
- Training and mentoring of RERT personnel.
- Representing ORIA on intra-Agency emergency response coordination committees and at other meetings.

RERT Management normally will meet quarterly in a conference call. These calls will be scheduled by the **CREM or CRIO Director** who will also provide an agenda for the call.

These calls will be used to:

- Address any technical, tactical, and operational issues impacting RERT preparedness.
- Encourage equal participation by NCRFO, NAREL, and RPD to make decisions affecting the RERT's mission.

- Discuss policy issues and budgetary needs and to implement plans as necessary to ensure readiness.

The **CRPR and CEM Directors** have special duties for developing and maintaining RERT notification capabilities, including:

- Maintaining an RERT Hotline.
- Developing and disseminating procedure(s) to the Headquarters (HQ) Emergency Operations Center (EOC) and Regions for RERT notifications.

2.3 RERT Notification Leads

The **CRPR, CPT, and CEM Directors** are **RERT Notification Leads** (see §3.2). The primary and back-up assignments for the RERT Notification Leads are rotated monthly.

2.4 RERT Coordination Team

The **RERT Coordination Team** consists of the **CRPR, CPT, CEM, CERLS, CREM, and CRIO Directors or their designees**. The **CREM Director** leads the RERT Coordination Team. The RERT Coordination Team is activated when the RERT Notification Lead informs the team members of a need for RERT response and remains active, in some form, throughout the response.

The RERT Coordination Team duties include, but are not limited to:

- Preparing the activation and deployment recommendations for RERT Senior Management.
- Providing RERT coordination, advice, and consultation for non-deployment response requests.
- Collaborating on Data Collection and Processing Documents, as requested by IC and entity with jurisdictional authority. Contents of the Data Collection and Processing Documents include but are not limited to Data Quality Objectives (DQOs), Measurement Quality Objectives (MQOs), Sampling and Analysis Plan (SAP), and Data Verification and Validation (Data V&V). All of these components are typically captured in a Quality Assurance Project Plan (QAPP) or similar document (e.g. work plan) and approved by an ICS structure even if ORIA does not develop the QAPP.
- Ensuring that adequate lines of communications are established and maintained between the various RERT groups (RERT Field Team, RERT Field Support Team, and RERT Incident Support Team), ORIA Management, and EPA Regions as detailed in job aids.
- In coordination with the Region and IC, assigning appropriate personnel to fill Environmental Unit and Public Information functions as needed to support RERT operations when the HQ EOC is not activated and staffed.

2.5 RERT Response Leads

During RERT response to a radiological/nuclear incident, the RERT Response Leads take on special roles depending on the response requirements:

- The **RERT Field Operations Lead**—normally the **CRPR Director**— depending on the size and scope of the incident¹, coordinates and supervises the deployment and actions of Field Teams and Deployable RadNet Teams. He/she may fill the ICS roles of Monitoring for Radioactivity Group Supervisor or Field Team Leader. For responses that include the FRMAC, RERT field operations will integrate into FRMAC Operations.
- The **RERT MERL Group Lead**—normally the **CEM Director**—coordinates and supervises the deployment and use of the MERL and the SPL. The MERL Group Lead may fill the ICS roles of Laboratory Group Supervisor or Mobile Laboratory Team Leader. For responses that include the FRMAC, RERT mobile laboratory operations will operate as a special asset within FRMAC.
- The **RERT Fixed Laboratory Lead**—normally the **CERLS Director**—coordinates and supervises the use of the fixed laboratory in support of the emergency response.
- For major radiological incidents, the FRMAC may be activated to coordinate federal environmental radiological monitoring, sampling, and assessment activities for the response (DOE/NV/25946-980, *FRMAC Operations Manual*, May 2010). When FRMAC is activated, RERT will provide a **Senior EPA Representative to FRMAC** to oversee EPA's participation in the FRMAC; assist the FRMAC Advisor (as appropriate); and facilitate the transfer of the FRMAC from Department of Energy (DOE) management to EPA management at the appropriate time. As part of the transfer from DOE to EPA, the Senior EPA Representative to FRMAC will participate in developing the long-term monitoring plan for the FRMAC. This position may be staffed by RERT Management or other personnel from NCRFO, NAREL, or RPD.
- Additional RERT Response Lead positions may be designated during a response. Each of these Response Leads will be responsible for executing their assigned response tasks, reporting and documenting their assigned activities, ensuring the health and safety of RERT personnel under their supervision, and managing RERT assets.

¹ In large and/or complex incidents involving multiple agencies RERT field team members may support the response as a strike team or integrate into multiagency field teams (e.g., FRMAC field teams). Under these circumstances, the RERT field team members will be under the tactical direction of the IC, not the RERT Field Operations Lead.

2.6 RERT Response Roles

When activated, all RERT staff respond as part of one of the following sub-teams: RERT Field Team, RERT Field Support Team, and RERT Incident Support Team.

RERT Field Team members are field deployable and will likely receive radiation exposure as part of their response duties. Examples of RERT Field Team members are Sampling and Monitoring Teams, Deployable RadNet Teams, Decontamination Specialists, and MERL staff.

RERT Field Support Team members will deploy to positions near the incident site, but they are not expected to receive radiation exposure as part of their response duties. Examples of RERT Field Support Team members are personnel who staff the MCP or are assigned to the Incident Command Post (ICP).

RERT Incident Support Team members may be deployed away from the incident site, such as at Regional or HQ EOCs or other coordinating response centers or support the incident remotely from their normal workstations, such as, the Advisory Team for Environment, Food, and Health (Advisory Team) representatives, NAREL fixed laboratory personnel, and RPD staff in the HQ EOC.

III. CONCEPT OF OPERATIONS FOR RESPONSE

3.1 Response Overview

This chapter explains the overall RERT concept, as shown in Figure 2, for responding to radiological/nuclear incidents of any magnitude, including nationally significant incidents and terrorist events under the NRF, as well as incidents in which EPA has the authority to respond under the NCP or the PHSA or AEA.

Although the response is shown as discreet steps, there is some overlap between the steps (i.e., actions for a particular step may begin while the previous step's actions are being completed). Further details for each response step are described in §3.2-3.6.

3.1.1 Communications

The key to an effective emergency response is **COMMUNICATION** – vertically up and down the management chain and horizontally between responding groups.

The **PRIMARY** method for all communications, including notifications, during a response to a radiological/nuclear incident is **PERSON-TO-PERSON**. This includes face-to-face, telephone, video conferencing, etc. Person-to-person communication is any communication method that is direct communication between two or more parties.

Emailing, texting, or other indirect exchanges are supplementary methods of communication. They are for documenting primary communication or exchanging supporting information.

In order to maintain **situational awareness**, the RERT Coordination Team, will provide routine updates to RERT Management on RERT activities to include but are not limited to: RERT personnel status; daily activity summary; anticipated activity; barriers; and accomplishments. CREM and CRIO Directors will collate the information for the updates.

3.1.2 Documentation

Documentation is another key to an effective response. RERT utilizes ICS forms and other standardized forms (such as NAREL's internal laboratory forms including those used for data review and verification) throughout the response – from notification through demobilization.

The RERT uses the RadResponder Network, or some other established network, to record, share, and aggregate radiological data during an emergency response.

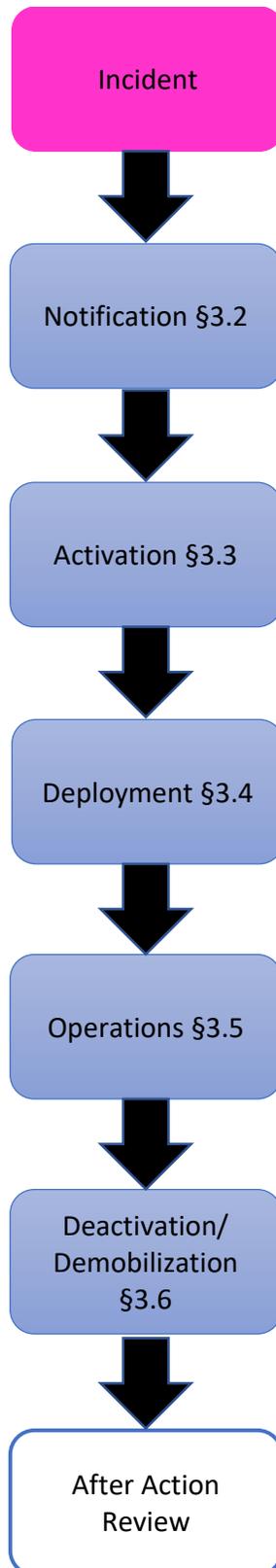


Figure 2: ORIA RERT ConOps Plan Overview

3.2 Notification

Notification is the initial verbal report informing RERT of a radiological incident. The single point-of-contact for RERT is the **RERT Hotline (702-528-1740)**.

3.2.1 Initial Notification

Notifications of radiological incidents, spills, and emergencies are normally made to the EPA HQ EOC and the Regional On-Scene Coordinator (OSC)². The HQ EOC and the OSC will notify the RERT Hotline and each other, as needed. In addition to the phone calls, follow-up emails are forwarded to a pre-selected RERT_ER_Notifications@epa.gov distribution list.

An RERT On-Call Duty Officer is assigned to staff the RERT Hotline; these RERT On-Call Duty Officers are from NCRFO and NAREL with the assignments rotated monthly. The RERT On-Call Duty Officers are backed up by the RERT Notification Leads.

3.2.2 Subsequent Notifications

The RERT On-Call Duty Officer, in consultation with the Regional Radiation Advisor or Program contact, will perform a preliminary assessment of the need for RERT support. If support is needed or has been requested, the RERT On-Call Duty Officer will notify the on-duty RERT Notification Lead. In turn, the RERT Notification Lead will notify the RERT Coordination Team.

As stated in §2.4, the RERT Coordination Team prepares activation/deployment recommendations of RERT assets based on the needs of the radiological incident. These recommendations are communicated to the RERT Senior Management.

The ORIA Director, or his/her designee, must approve any further actions by the RERT that involves the activation, mobilization and deployment of RERT assets to an incident

Other notifications internal and external to EPA will occur in accordance with the RERT Notifications SOP.

3.3 Activation

Activation of RERT assets includes notification (informing RERT staff of the incident and expected RERT actions), activation (ordering RERT staff to begin preliminary response actions), and mobilization (assembling and organizing resources) components.

² The EPA Regions may have different titles for the OSC that is on-duty and responsible for taking notifications. In addition, a different OSC may be assigned the responsibility for responding to or coordinating the response to an incident. For simplicity, the title "Regional OSC" or just "OSC" will be used to indicate the person at the Region who is acting on behalf of the Region.

Activation of the RERT occurs based on the type of response needed and the legal authorities supporting that response. In all cases, the activation occurs as shown in Figure 3.

ORIA Director, or his/her designee, approval is required for all RERT activations and deployments. If the ORIA Director does not approve RERT activation and deployment as requested, the request may be returned to the requestor for modification and resubmission for consideration.

- Activation of the RERT for a radiological incident does not necessarily mean that RERT personnel will be deployed to a site or sites.
- In some cases, RERT advice or consultation only may be needed and may be provided by an appropriate RERT Response Lead under the PHS/AEA authorities. The RERT Coordination Team must brief the ORIA Director on the advice or consultation provided and submit a report of the RERT support given.
- For local or regional radiological incidents, the OSC, Regional Radiation Advisor or Program contact, or a state, local, tribal, or territorial official may request RERT assistance or deployment of RERT assets.
- When an incident involving radioactive materials is identified as an emergency or major disaster under the Stafford Act, Federal Emergency Management Agency (FEMA), via EPA HQ EOC, may request RERT assistance. Under a national level response, FRMAC is normally activated and a RERT Response Lead will be assigned to coordinate EPA's participation in FRMAC activities as the EPA Senior Representative to FRMAC. RERT assets will integrate with FRMAC.

During activation, the RERT Coordination Team, under the direction of the CREM Director, assists the RERT in activation and deployment activities including collaborating, if requested by the incident authority, on the development and/or review of the Data Collection and Processing Documents as specified in §2.4.

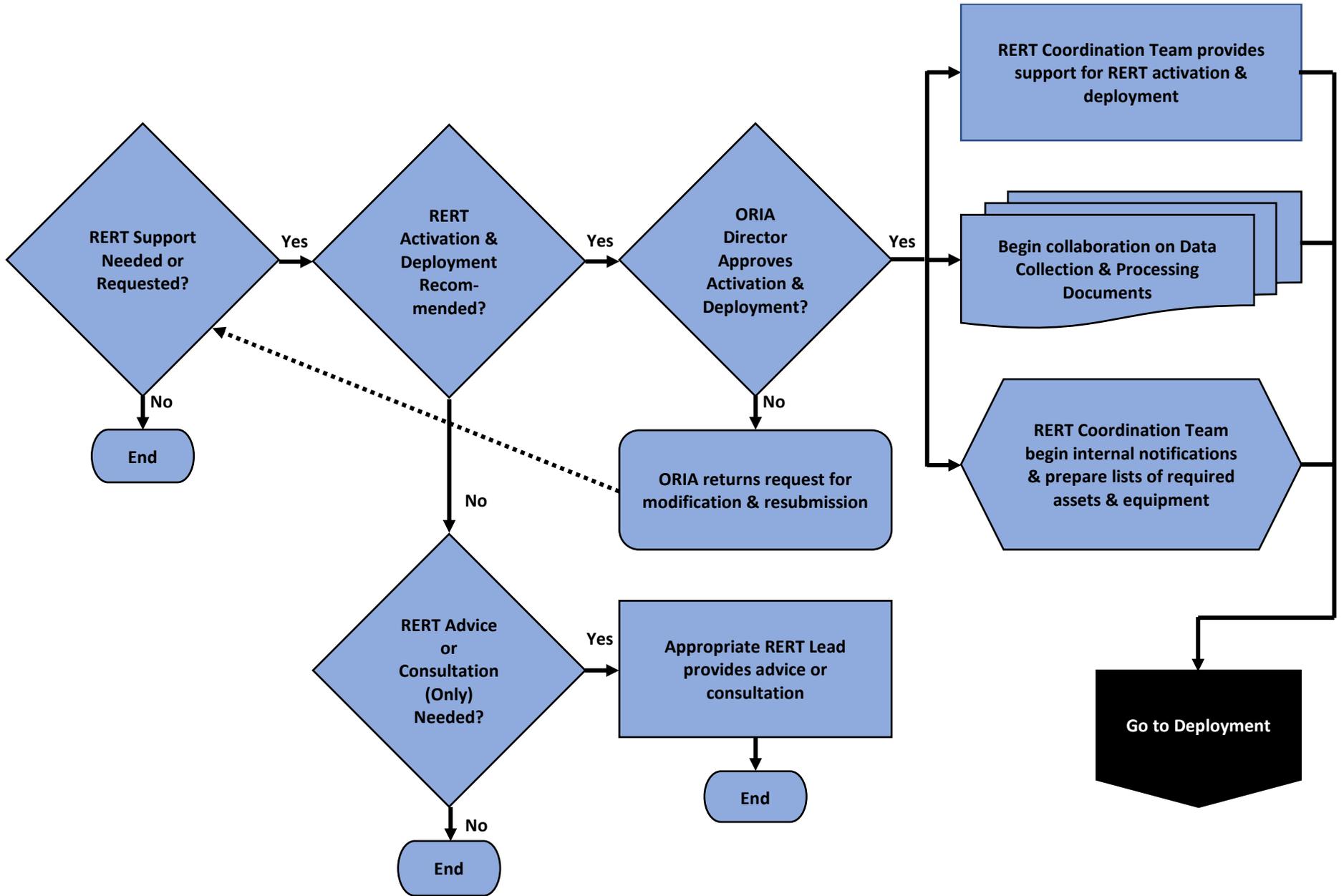


Figure 3: Activation

3.4 Deployment

Deployment is when RERT assets are moved to a specific area of operations (such as to the incident site or EOC). Deployment only occurs when the ORIA Director authorizes the deployment. Deployment of field assets, including the MERL, will normally begin within 24-hours of the authorization. Deployment of RERT Incident Support Team members will occur as soon as possible after ORIA Director authorization.

After confirming the necessary personnel and equipment are ready for deployment and the ORIA Director authorizes the deployment, the RERT Coordination Team will coordinate with the requestor (for small incidents), OSC and Regional Radiation Advisor or Program contact (for Regional incidents), or HQ EOC (for national-scale incidents) for deployment of RERT assets. In addition, coordination may be necessary with intra-agency and inter-agency partners.

When FRMAC is activated, the RERT Response Lead coordinates with FRMAC Director on the deployment of the necessary RERT assets and personnel. Additional information on this coordination and FRMAC deployment can be found in the *FRMAC Operations Manual*.

3.5 Operations

The RERT will perform their operations in accordance with the approved Data Collection and Processing Documents, the Incident Action Plan, and other work plan documents for the response.

3.5.1 Response organization

Every incident response will have a slightly different response organization. The RERT will use or integrate into an ICS structure. If an incident expands to require all the potential functions of the RERT, ORIA personnel may not be available to fulfill each potential RERT function; therefore, other offices or divisions may need to supply additional qualified personnel. The RERT Coordination Team may include a recommendation to the ORIA Director to request support from EPA's Response Support Corps to fill non-technical positions.

In a small incident, the RERT members may serve as a single unit, such as a Task Force or Strike Team, working under the direction of an On-Scene Coordinator.

For a significant incident, it is expected that RERT members may be split up throughout the response organization, both within the FRMAC and potentially in other parts of the organization (for example, providing technical expertise within the Planning Section).

For a foreign nuclear incident (FNI) without a specific incident site in the United States or its territories, any RERT response would be coordinated from the EPA HQ EOC. Refer to the ORIA FNI Guide for more details.

Prior to RERT inclusion in the ICS structure, RERT Management and the RERT Response Leads retain responsibility for RERT personnel and equipment.

When RERT members are integrated into an ICS structure:

- Requests for information on RERT activities should be channeled through an EPA EOC Liaison Officer, Resource Unit, Data Support Coordinator, or other designated individual to their counterparts in the field. Requesting information directly from RERT personnel while they are deployed adversely affects their ability to concentrate on emergency response operations.
- It is the responsibility of the ICS organization to look after the needs of all responders, including RERT personnel.
- RERT members take direction from within the ICS command structure as opposed to direction from ORIA and must work to resolve issues within the ICS structure.
- See Appendix B for the types of roles RERT members may fill in an ICS structure.

3.5.2 Maintaining Situational Awareness

As stated in §2.5, at least daily, the RERT Response Leads through their representatives on the RERT Coordination Team will provide situational and status updates to the CREM and CRIO Directors so that they may provide information on RERT activities to RERT Management.

3.5.3 Data Collection and Processing Documents

As the response progresses, Data Collection and Processing Documents may need to be revised as new information becomes available or as events unfold. The RERT Coordination Team will continue to collaborate with the Environmental Unit or other designated group, as requested, on the revisions to these documents. RERT personnel will be made aware of revisions and perform response activities according to the approved documents as directed by IC.

3.5.4 Transfer of FRMAC Management to EPA

Responsibility for operation and management of the FRMAC transfers from DOE to EPA after the initial response phase. The Senior EPA Representative to FRMAC will facilitate the transfer. Transfer of FRMAC operational control is detailed in the most recent *Guidance Document for the Transfer of Operational Control of the Federal Radiological Monitoring and Assessment Center (FRMAC) from the U.S. Department of Energy to the U.S. Environmental Protection Agency*.

3.5.5 Recovery

The Incident Commander/Unified Command ensures the development of a recovery plan, as needed. If requested, RERT personnel will support the development and implementation of that plan. The EPA *PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents*, January 2017, and the Department of Homeland Security (DHS) suite of guidance documents may be used as references for plan development.

3.6 Deactivation/Demobilization

A phased demobilization process is likely, with individuals demobilizing (returning to their normal work locations) and positions not being refilled as the demands of the response diminish over time. The goal of demobilization is the orderly, safe, and efficient return of a resource to its original location and status.

An Incident Demobilization Plan, developed in the Demobilization Unit of the Planning Section, will be utilized to ensure that sufficient technical expertise from RERT personnel is retained in the response until it is no longer needed. Normally, RERT personnel will not lead the development of the Incident Demobilization Plan, but they will have a part in its execution. The Incident Demobilization Plan includes specific instructions for all personnel and other resources to demobilize.

The Incident Commander or Unified Command will order demobilization as needed.

Because of EPA's unique position of managing long-term monitoring and assessment following a radiological incident, parts of the RERT may demobilize as an "emergency" response, but they may be maintained at or near the scene as part of the long-term management of the incident.

As RERT assets and personnel are returned to their normal non-emergency positions, equipment will be repaired, consumables will be resupplied, and personnel may be referred to post-exposure medical monitoring.

IV. EMERGENCY PREPAREDNESS AND ADMINISTRATION

4.1 Introduction

ORIA prepares for radiological and nuclear incidents and emergencies by developing plans and procedures that address the following:

- Training and exercises.
- Concept of operations.
- Radiological assessment capabilities.
- Notification and communications requirements.
- Personnel emergency response duties.
- Advice on protective actions.
- Long-term environmental monitoring.
- Radiation risk and crisis communications

4.2 Implementing Plans and Procedures

ORIA maintains up-to-date copies of all implementing documents that define the duties and responsibilities of emergency response personnel for each ORIA organization, as defined in the EPA-RERP and this ConOps.

RERT Management reviews RERT implementing procedures in accordance with the established quality system and revises them, as necessary, to incorporate changes to federal emergency response plans; the EPA emergency response mission, plans, and procedures; or lessons learned from training exercises and actual radiological emergencies. The results of this review will be shared with RERT staff at routinely scheduled division or center meetings. The CREM Director maintains an electronic library of all ORIA-wide RERT documentation, including the EPA-RERP, the ConOps, and notification lists.

Development, review, and approval of ORIA-wide RERT SOPs, training, and guides will be in accordance with EPA 402-R-06-110, Revision 2, *Development and Approval of Radiological Emergency Response Team (RERT) Standard Operating Procedures*, November 5, 2018, and ORIA Quality Management Plan.

RERT Plans, ConOps, Procedures and Notification lists are maintained at:

https://response.epa.gov/oria_rerp_rert

4.3 Training, Drills, and Exercises

RERT members are expected to participate in one ORIA-wide or national level exercise each year, as determined by the RERT Management. “Exercises” include any activity beyond classroom training that provides RERT members with experience related to their response functions, such as:

- Tabletop exercises.
- Training or practice sessions using field and laboratory equipment.
- RadResponder national and local exercises.
- Intergovernmental field exercises.

Annually, RERT Management reviews their established training and exercise regimen for all RERT members. The review takes into consideration new EPA orders, directives, manuals, and guidelines.

Lessons learned from exercises and incidents are documented and considered for development into action items. All RERT action items are tracked and are incorporated into the current year’s planning to identify necessary next steps and make resource assignments.

4.4 Readiness Assessment

As part of EPA’s Program Assessment Rating Tool, ORIA regularly assesses the readiness of the ORIA RERT using a Radiological Emergency Response Team Readiness Assessment. The latest readiness assessment is available at https://response.epa.gov/oria_rerp_rert.

4.5 ConOps Maintenance

RPD maintains control and distribution of the ConOps.

The CREM Director, in consultation with the RERT Management, is responsible for reviewing this ConOps two years after issuance and then every five years to determine currency and applicability. ORIA will update the ConOps as significant changes occur affecting RERT response activities.

V. ACRONYMS

§	Section
AEA	Atomic Energy Act of 1954, as amended
CEM	Center for Environmental Monitoring
CERLS	Center for Environmental Radioanalytical Laboratory Science
ConOps	Concept of Operations
CPT	Center for Planning and Training
CRCPD	Conference of Radiation Control Program Directors
CREM	Center for Radiological Emergency Management
CRIO	Center for Radiation Information and Outreach
CRPR	Center for Radiation Preparedness and Response
DHS	Department of Homeland Security
DOE	Department of Energy
DQO	Data Quality Objective
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPA-RERP	EPA Radiological Emergency Response Plan
FEMA	Federal Emergency Management Agency
FRMAC	Federal Radiological Monitoring and Assessment Center
HQ	Headquarters
ICP	Incident Command Post
ICS	Incident Command System
IMH	Incident Management Handbook
JIC	Joint Information Center
MCP	Mobile Command Post
MERL	Mobile Environmental Radiation Laboratory
MQO	Measurement Quality Objective
NAREL	National Analytical Radiation Environmental Laboratory, Montgomery, AL
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCRFO	National Center for Radiation Field Operations, Las Vegas, NV
NIMS	National Incident Management System
NRC	National Response Center
NRF	National Response Framework

OEM	Office of Emergency Management
ORIA	Office of Radiation and Indoor Air
OSC	On-Scene Coordinator
PAG	Protective Action Guide
PHSA	Public Health Service Act
QAPP	Quality Assurance Project Plan
RCP	Radiation Control Program
REOC	Regional Emergency Operations Center
RERT	Radiological Emergency Response Team
RPD	Radiation Preparedness Division, Washington, DC
SAP	Sampling and Analysis Plan
SEOC	State Emergency Operations Center
SOP	Standard Operating Procedure
SPL	Sample Preparation Laboratory
USNRC	U.S. Nuclear Regulatory Commission

APPENDIX A: RERT ORGANIZATIONS

A.1 National Center for Radiation Field Operations

Based in Las Vegas, Nevada, NCRFO manages and coordinates the RERT field assets, which includes field monitoring and sampling capabilities, for preparedness, planning, and response to radiological emergencies and accidents nationwide. The RERT is an essential component of NCRFO and is key to EPA's response to radiological emergencies and accidents nationwide.

The NCRFO staff also assesses sites contaminated with radioactive material and manages all of the related radiation field resources. For both missions, NCRFO works with, and supports, the EPA's Office of Emergency Management (OEM), regional emergency response programs, the other EPA Special Teams, other federal agencies, states, tribes, and territories.

A.2 National Analytical Radiation Environmental Laboratory

Based in Montgomery, Alabama, NAREL operates several programs that routinely conduct radiological analyses of environmental samples. The data are available to the public and to the Radiological Emergency Response Program during an emergency. Assets located at NAREL include the fixed analytical laboratory, the MERL, and the RadNet air and water monitoring programs.

NAREL supports the Agency's Homeland Security mission through its lead responsibility within EPA for analyzing samples collected in the field following a nuclear or radiological incident or accident. In this role, NAREL provides fixed and mobile laboratory analytical support for all areas of ORIA's emergency response program and provides expert consultation on radiation incidents, as well as coordinates appropriate analytical projects with NCRFO. Staff from NAREL fill positions in the RERT to include mobile laboratory analysts and to support other positions within the Incident Command structure.

NAREL plays a lead national role in environmental radiological laboratory preparedness for a nuclear incident or accident through various activities, such as the publication of guidance documents and development of rapid radiochemical methods, conducting training courses in radiochemistry and by conducting proficiency testing of commercial, state and other federal laboratories. In partnership with EPA's Office of Research and Development's National Homeland Security Research Center, NAREL has developed and validated more than 40 rapid radiochemical methods for environmental and urban matrices.

NAREL is EPA's only radiological laboratory and is accredited by National Environmental Laboratory Accreditation Program to The NELAC Institute Standards. NAREL is also a member of EPA's Environmental Response Laboratory Network

(ERLN) and is an active member in the DHS-lead Integrated Consortium of Laboratory Networks (ICLN).

A.3 Radiation Protection Division

Based at EPA Headquarters in Washington, DC, RPD supports the RERT as the overarching organization for CREM and CRIO. CREM RERT personnel are radiation experts who, in conjunction with NCRFO, NAREL, EPA regions and offices, and numerous Federal agencies, are responsible for coordinating EPA's national planning and policy for radiological emergencies. CRIO RERT personnel are public affairs personnel who are specialized in radiological information and who work with other Federal agencies in developing public messaging and outreach policy. In the event of radiological emergency responses, RPD RERT personnel, while potentially being assigned to field positions, will generally be assigned to various roles in the EPA's EOC and to other Federal agencies' emergency operations facilities.

A.4 EPA Regional Offices

Every EPA regional office has a Regional Radiation Program. However, the Regional Radiation Program may be housed in multiple and varying programs in the EPA Regions. Regional radiation personnel will serve as Regional Radiation Advisors and Regional RERT Liaisons. Air Division, Superfund, or other regional personnel may fill these functions, based on the organizational structure of the Region. Although not managed by ORIA, the Regional RERT Liaison provides the impacted Regional Radiation Program with a direct link to the RERT from the field and assists the RERT in understanding regional and state and local relationships and resources. The Regional RERT Liaison serves as a representative for the impacted region and Regional Radiation Program with the rest of the RERT. The RERT Liaison is expected to work with the RERT in the field.

APPENDIX B: RADIOLOGICAL EMERGENCY RESPONSE TEAM AND THE INCIDENT COMMAND SYSTEM

EPA has adopted the ICS and the NIMS as detailed in the EPA IMH as the field management structure during an emergency response. Under ICS, the IC manages the response and enables EPA to integrate and coordinate with Federal, state, local, tribal, and territorial response personnel and assets. So that RERT maintains awareness and continuity during responses, the RERT ConOps focuses on using ICS structure throughout all types of responses, from a small incident requiring only partial RERT activation and deployment through a full federal response to a Nationally Significant Incident utilizing all RERT assets.

For a radiological/nuclear incident, RERT personnel will normally be assigned to the Operations or Planning areas in an ICS structure, but they may be assigned to other functions as the response dictates. EPA IMH Chapter 18, Radiological/Nuclear Incidents, details the duties of the ICS functions that are more specifically related to radiological and nuclear incidents. There are additional positions that may be filled by RERT personnel addressed in Chapters 6 – 12, 15, and 20.

ICS positions (including positions of the same title in an ICS-like structure in the HQ EOC) that may be filled by RERT personnel for radiological/nuclear incidents are shown in Table B-1. The fixed laboratory personnel from NAREL are not included in the ICS structure; therefore, they are not included in Table B-1. This table is designed to be an example only; there may be other positions that RERT personnel fill that are not included here, and there may be positions listed that RERT personnel would not fill for a specific incident. It is anticipated that RERT personnel will not fill all of the positions listed during every response. References to the EPA IMH are included.

When FRMAC is activated, RERT field operations and MERL and SPL are usually expected to be integrated into the FRMAC. Therefore, those RERT personnel would not be available for other ICS assignments.

Table B-1 RERT and the ICS (without FRMAC activation)

Command Staff						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Deputy Incident Commander		HQ EOC			X	Command and General Staff https://ertpvu.org/ClassroomCourseDetail.aspx?id=34 Incident Commander https://ertpvu.org/ClassroomCourseDetail.aspx?id=29
Safety Officer	Figure 18-1 Page 7-10	ICP	X			Safety Officer https://ertpvu.org/ClassroomCourseDetail.aspx?id=27 Command and General Staff https://ertpvu.org/ClassroomCourseDetail.aspx?id=34
Radiation Safety Officer (assistant to Safety Officer)	Pages 7-13 & 18-10	ICP	X			Safety Officer https://ertpvu.org/ClassroomCourseDetail.aspx?id=27 Radiation Safety – Practical Applications https://ertpvu.org/ClassroomCourseDetail.aspx?id=16 Command and General Staff https://ertpvu.org/ClassroomCourseDetail.aspx?id=34
Public Information Officer	Figure 18-1 Page 7-4	HQ EOC			X	Public Information Officer https://ertpvu.org/ClassroomCourseDetail.aspx?id=35 FEMA PIO Standard https://www.fema.gov/sites/default/files/2020-05/fema_nims_509_publicinfoofficer_0.pdf Command and General Staff https://ertpvu.org/ClassroomCourseDetail.aspx?id=34

Operations Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Radiological Operations Branch	Figure 18-1 Page 18-4	ICP	X			Division/Group Supervisor – EPA 339 https://ertpvu.org/ClassroomCourseDetail.aspx?id=9
Monitoring (for Radioactivity) Group Manager	Pages 18-5 & 18-11	ICP	X			NCRFO Training Program Topics Equivalent to: Division/Group Supervisor – EPA 339 https://ertpvu.org/ClassroomCourseDetail.aspx?id=9
RadNet Deployables Specialist	Page 18-11	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 Air Monitoring for Emergency Response https://ertpvu.org/ClassroomCourseDetail.aspx?id=25
Data Acquisition Officer	Page 18-12	ICP	X		X	
Field Team Specialist	Page 18-12	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 Sampling for Hazardous Materials https://ertpvu.org/ClassroomCourseDetail.aspx?id=20 Air Monitoring for Emergency Response https://ertpvu.org/ClassroomCourseDetail.aspx?id=25 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39

Operations Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Laboratory Support Group (Onsite & Offsite) – Laboratory Team Leader (MERL Group Lead)	Figure 18-1 & Page 18-13	ICP		X		NAREL Quality System Documents and Training - NAREL QA/QMP-1 - NAREL QA/QAM-1 - NAREL QA/SOP-9 Division/Group Supervisor – EPA 339 https://ertpvu.org/ClassroomCourseDetail.aspx?id=9
Mobile Laboratory Specialist	Page 18-14	MERL		X		NAREL Quality System Documents and Training - NAREL QA/QMP-1 - NAREL QA/QAM-1 - NAREL QA/SOP-9 Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 FRMAC Laboratory Analysis Course (LA 100)
Infrastructure Decontamination Group	Figure 18-1	ICP	X			Division/Group Supervisor – EPA 339 https://ertpvu.org/ClassroomCourseDetail.aspx?id=9
Decontamination Specialist	Page 18-10	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39

Operations Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Radioactive Waste Management Group	Figure 18-1	ICP	X			NCRFO Training Program Topics Equivalent to: Environmental Remediation Technologies https://ertpvu.org/ClassroomCourseDetail.aspx?id=4 Division/Group Supervisor – EPA 339 https://ertpvu.org/ClassroomCourseDetail.aspx?id=9 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39
Exclusion Zone Entry Control Group	Figure 18-1	Field	X			Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39
Sample Control Specialist	Page 18-13	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40
Site Entry Specialist	Page 18-10	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39

Operations Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Sample Shipping Specialist	Page 18-14	Field	X			NCRFO Training Program Topics Equivalent to: Advanced Radiation Safety for EPA Emergency Responders https://ertpvu.org/ClassroomCourseDetail.aspx?id=40 HAZWOPER https://ertpvu.org/ClassroomCourseDetail.aspx?id=39
Worker Health & Safety Implementation Branch	Figure 18-1 Page 18-5	ICP	X			Health and Safety for EPA Site Supervisors https://ertpvu.org/ClassroomCourseDetail.aspx?id=41

Planning Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Environmental Unit Leader	Figure 18-1 Page 9-10	HQ EOC ICP ³			X	Environmental Unit Leader https://ertpvu.org/ClassroomCourseDetail.aspx?id=28 Command and General Staff https://ertpvu.org/ClassroomCourseDetail.aspx?id=34
Health/Environmental Assessment Team	Figure 18-1	HQ EOC ICP ³			X	
Radiological Assessment Specialist	Pages 9-16 thru 9-18 Page 18-15	HQ EOC ICP ³			X	Radiological Emergency Response Operations, PER-904 (https://www.firstrespondertraining.gov/frts/npccatalog) Radiological Accident Assessment, PER-316 (https://www.firstrespondertraining.gov/frts/npccatalog)
Dose Assessor	Page 18-16	HQ EOC ICP ³			X	ORIA Dose Assessment for Radiological Emergencies SOP
Response and Cleanup Technology Team	Figure 18-1	HQ EOC ICP ³			X	Environmental Remediation Technologies https://ertpvu.org/ClassroomCourseDetail.aspx?id=4
Remedial Support Specialist	Page 18-15	HQ EOC ICP ³			X	Environmental Remediation Technologies https://ertpvu.org/ClassroomCourseDetail.aspx?id=4
Quality Assurance Team	Figure 18-1 Page 9-14	HQ EOC ICP ³			X	
Quality Assurance Specialist	Page 18-14	HQ EOC ICP ³			X	
Data Management Team	Figure 18-1	HQ EOC ICP ³			X	

Planning Section						
ICS Position	EPA IMH (April 2020) Reference	Response Facility ¹	RERT personnel normally staffing the position ²			Performance Reference
			NCRFO	MERL	RPD	
Sampling, Monitoring, & Analysis Plan Development Team	Figure 18-1 Page 9-12 & 9-15	HQ EOC ICP ³			X	Sampling for Hazardous Materials https://ertpvu.org/ClassroomCourseDetail.aspx?id=20
Logistics Section						
No pre-identified positions for RERT personnel in the Logistics Section; however, RERT personnel with appropriate training and experience may fill positions as required by the incident response						
Finance/Administration Section						
No pre-identified positions for RERT personnel in the Finance/Administration Section; however, RERT personnel with appropriate training and experience may fill positions as required by the incident response						

¹ Response facilities include HQ-EOC, REOC, SEOC, ICP, JIC, field location (near incident site), etc.

² The fixed laboratory at NAREL is outside of the ICS structure and is not included in this table.

³ Normally, RPD personnel will not deploy to the ICP; however, they will liaison with these positions at the ICP with staffing support from OEM. .