

A photograph of the United States flag waving in the wind, set against a backdrop of snow-capped mountains under a clear blue sky.

U.S. Department of Homeland Security

Fiscal Year 2016

**Radiological/Nuclear Detection Guidance
for
FEMA Preparedness Grants**



Domestic Nuclear Detection Office

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A. Purpose

This document provides guidance for state, local, tribal, and territorial (SLTT) jurisdictions seeking to use Federal Emergency Management Agency (FEMA) preparedness grants and Domestic Nuclear Detection Office (DNDO) assistance resources to develop and sustain radiological/nuclear (R/N) detection capabilities. This guidance will:

- Describe the R/N detection mission;
- Outline the essential tools jurisdictions need to build, maintain, and sustain R/N detection capabilities;
- Discuss the Federal preparedness grants available to help jurisdictions identify and acquire those tools and list steps jurisdictions can take to secure those Federal resources; and,
- Present the planning, technical, and operational assistance that DNDO can provide to support R/N detection capability development and sustainment.

DNDO produced this document as a supplemental resource to Department of Homeland Security (DHS) preparedness grants, including the Homeland Security Grant Program (HSGP) and Port Security Grant Program (PSGP).

B. Radiological/Nuclear Detection Mission

Preventing nuclear terrorism is a national security priority for the United States. As part of the effort, the U.S. Government seeks to prevent adversaries from unauthorized development, possession, importation, storage, transport, or use of nuclear or other radioactive materials. NSPD-43/HSPD-14 and the Safe Port Act of 2006 charge the DHS Domestic Nuclear Detection Office (DNDO) with coordinating the development of the Global Nuclear Detection Architecture (GNDA), which is a framework for detecting (through technical and non-technical means), analyzing, and reporting on nuclear and other radioactive materials out of regulatory control. To accomplish this, DNDO works with partners from federal, SLTT, and international governments, as well as the private sector.

DNDO's assistance to SLTT partners serves to coordinate and enhance their ability to detect and interdict R/N threats by ensuring law enforcement and public safety personnel are well-trained and use the right technology where applicable. Close collaboration between DNDO and SLTT officials when developing, enhancing, or sustaining R/N detection programs ensures efficient integration of SLTT programs and capabilities into the GNDA.

C. Developing, Maintaining and Sustaining Radiological/Nuclear Detection Capabilities

An enduring, comprehensive R/N detection capability requires planning, maintenance, and sustainment. DNDO provides support to jurisdictions seeking to develop new R/N detection capabilities, as well as to maintain and sustain existing capabilities. This section summarizes the necessary actions and available resources at each step.

- **R/N Detection Capability Development.** Jurisdictions should understand the R/N risk factors in their area and identify gaps between their existing R/N detection capabilities and recommended capability levels. DNDO provides tools that help jurisdictions determine their level of capability and to acquire technologies and training to fill capability gaps. DNDO also works with SLTT partners to engage with regional fusion centers, State Homeland Security Advisors, and other organizations that provide resources when developing an R/N detection capability.
- **R/N Detection Capability Maintenance:** Jurisdictions must routinely refresh, replace, and calibrate equipment to ensure effective performance. Officials should also organize regular training, drills, and exercises to ensure staff proficiency. DNDO works with jurisdictions to perform planning, training, and exercises necessary to maintain desired levels of performance.
- **R/N Detection Capability Sustainment.** Jurisdictions can help ensure long-term capability sustainment by keeping senior leadership apprised of the R/N threat and detection mission and incorporating R/N detection capability needs into their budget process and staff transition plans. DNDO works with SLTT partners on both of these fronts to ensure continued R/N detection capability.

D. Preparedness Grant Funding to R/N Detection: Threat and Hazard Identification and Risk Assessment and State Preparedness Report Processes

Stakeholders should ensure strategic planning for an R/N detection program aligns with Presidential Policy Directive 8 (PPD-8) guidance, SLTT strategic priorities, and other priorities as may be appropriate. Specifically, R/N detection planners ensure proper coordination of regional resources by incorporating the R/N detection mission into state and local strategic preparedness planning efforts. For State and Urban Area Security Initiative (UASI) partners, this planning will include the Threat and Hazard Identification and Risk Assessment (THIRA) process and respective state, urban area, and area maritime security committee working groups. R/N detection planning will also include the State Preparedness Report (SPR) development process. FEMA's Comprehensive Preparedness Guide (CPG) 201, 2nd Edition: *THIRA Guide* provides a process overview and can be found online at: [FEMA National Preparedness Cycle website](#).

Prior to initiating program activities, grantees are encouraged to contact DNDO at dndo.sla@dhs.gov in order to take advantage of available program guidance, tools, resources, and updates.

D.1. Including R/N Detection in the THIRA Process

The THIRA process has four steps, as shown in Figure 1. DNDO recommends that SLTT leaders developing an R/N detection capability take the following actions during the relevant steps of the THIRA process:

- **Step 1:** Jurisdictions should coordinate with state or regional fusion centers for input to the THIRA “Threat” component. The DHS Office of Intelligence and Analysis (I&A) developed a threat template in coordination with DNDO to assist fusion centers in this effort and provide a national perspective on R/N threats.
- **Step 2:** Jurisdictions should evaluate and prioritize R/N vulnerabilities in the context of local threats to identify R/N detection capabilities to be developed.
- **Steps 3 and 4:** Planners should refer to the PPD-8 core capabilities and associated desired outcomes to give identified R/N risk factors context (step 3) and establish R/N detection capability targets (step 4). The DNDO Capability Development Framework (CDF) can further assist with this activity (see section E.1). R/N detection directly supports the Screening, Search, and Detection core capability. Other core capabilities applicable to a R/N detection program include, but are not limited to:
 - Intelligence and Information Sharing
 - Interdiction and Disruption
 - Operational Coordination
 - Planning
 - Public Information and Warning
 - Risk Management

Figure 1 outlines the four-step THIRA process aligned to DNDO guidance recommendations.

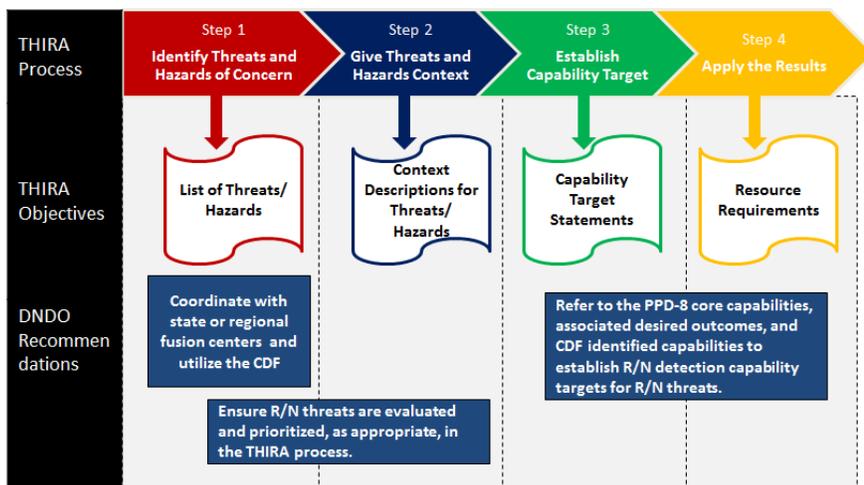


Figure 1. The Four-Step THIRA Process

DNDO has developed guidance materials to assist state and local officials to effectively identify and evaluate the R/N threat within the THIRA process (Section E.1). Additional information on core capabilities and associated desired outcomes can be found online at <http://www.fema.gov/core-capabilities>. Planners should also use the CDF (see Section E.1) to further refine R/N detection-specific target outcomes.

D.2. Applying THIRA R/N Findings to the SPR

States and UASIs can use the R/N information from their THIRA submission to accurately reflect their R/N detection capability when completing the SPR. This process includes three focus areas:

- Designating the seven core capabilities listed above as priorities for the state or territory and refine capability targets
- Within the Unified Reporting Tool (URT), ensure that the functional area checkboxes that address gap areas incorporate R/N, suggesting language for “other functional areas” whenever appropriate
- Use the free-text gap descriptions available for all core capabilities by offering language that describes specific R/N gaps related to any Planning, Organization, Equipment, Training, and Exercise (POETE) element

D.3. Leveraging DHS Preparedness Funding

DHS preparedness funding may be used for R/N detection program maintenance contracts, warranties, repair or replacement costs, upgrades, and user fees under all active and future grant awards. However, stakeholders are reminded to be sensitive to grant supplanting issues. Funds may also be used to support training and exercise requirements.

Specifically within the Homeland Security Grant Program, states are required to ensure that at least 25% of the combined funds are dedicated toward Law Enforcement Terrorist Prevention Activities (LETPA) linked to one or more core capabilities within the National Preparedness Goal. Allowable costs within include the following:

“Building and sustaining preventive radiological and nuclear detection capabilities, including those developed through the Securing the Cities initiative.”

More information about allowable maintenance and sustainment costs are located in FEMA Information Bulletins [#336](#) and [#348](#) and supplemented in [FEMA Grant Policy FP 205-402-125-1](#).

D.4. Allowable Costs

Appendix A outlines DHS preparedness grants available to build, enhance, or sustain R/N detection programs. Appendix A also identifies specific R/N detection equipment (via the Authorized Equipment List) allowed by each grant.

E. DNDO Assistance, Support, and Available Resources

DHS supports SLTT R/N detection capability development through assistance and preparedness funding. This section describes the types of assistance and other resources DHS provides and offers an overview of how to apply available funding toward allowable costs.

The following sections outline the POETE support DNDO can provide.

E.1. Planning and Organization Support

DNDO provides direct assistance to plan, develop, manage, evaluate, and sustain a R/N detection program and facilitates threat awareness to federal and SLTT stakeholders through workshops and a standardized process. DNDO also provides direct support to stakeholders to establish the following capabilities:

- Sustainable statewide or regional program framework
- Response and alarm adjudication processes and support structures
- Threat awareness training and baseline capability assessments
- Program enhancement objectives and priorities
- Program sustainment, training, and exercise plans
- Special events planning
- Data and intelligence coordination structure

DNDO's assistance can be tailored to fit individual needs (from statewide efforts to local jurisdictions), launch new programs, or review and enhance existing programs. Contact DNDO at dndo.sla@dhs.gov to develop or enhance R/N detection capabilities within your state, agency, or jurisdiction.

Radiological/Nuclear Detection and Adjudication Capability Development Framework (CDF). The CDF assists SLTT planners with identifying recommended levels of R/N detection capability based on the likelihood of their jurisdiction being targeted or used as a transit point for an R/N threat. The CDF is based on lessons learned provided by subject matter experts and is intended to provide strategic guidance without establishing specific requirements. Planners can leverage this tool to support grant investment justifications and the THIRA process by utilizing the CDF to identify desired levels of capability and current capability gaps. The CDF and supporting resources are available on the R/N detection Community of Interest (COI) web portal or by contacting DNDO at dndo.sla@dhs.gov.

Radiological/Nuclear Detection Community of Interest (COI) Web Portal. The Homeland Security Information Network (HSIN) R/N detection COI provides consistent, useful R/N detection information to the federal and SLTT R/N detection community. The R/N detection COI enhances communication between DNDO and the broader R/N detection community while providing a forum where vetted users can securely collaborate to share examples, best practices and lessons learned. The COI provides federal and SLTT operators seeking to build or enhance R/N detection capability with

access to DNDO capability development documents. Interested individuals with a “need to know” may request access by emailing R/N_detection_COI@hq.dhs.gov with the subject line “R/N detection COI HSIN Access Request.”

NIMS Resource Type Definitions

Appendix B provides NIMS Resource Type definitions which categorize R/N detection equipment, teams, and personnel. SLTT planners developing or enhancing R/N detection capabilities should identify types and quantity of current NIMS resources, as well as those envisioned as part of grant submission(s). Planners should also consider Emergency Management Assistance Compact or other interstate mutual aid agreements and compacts in place or anticipated.

The R/N detection NIMS resource type definitions are available on the HSIN R/N detection COI web portal. Currently, these resource types are undergoing the FEMA tier one national-level review, and once approved, will be posted at the FEMA [Resource Typing Library Tool](#).

Analysis, Plans and Protocols. Working in coordination with federal and SLTT R/N detection operators, DNDO has developed THIRA guidance, planning templates and training materials to assist stakeholders with developing and sustaining R/N detection capabilities. The THIRA guidance assists stakeholders in effectively identifying and evaluating the R/N threat within their jurisdictions. DNDO also developed planning templates and compiled examples to assist in the establishment of concepts of operations (CONOPs) and standard operating procedures (SOPs) for R/N detection operations and alarm resolution.

E.2. Equipment

DNDO continues to pursue coordinated delivery of R/N detection capabilities to expand SLTT capabilities. Grantees intending to purchase R/N detection equipment are advised to consider only instruments independently tested by accredited laboratories and with demonstrated conformity with applicable American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) N42 standards. The test reports provide the SLTT community performance and operational test results that allow for the selection of the best possible equipment for their needs. Manufacturers offering new equipment for consideration should be asked to provide evidence of independent testing for compliance with these standards.

DNDO equipment test reports are available on the Argonne National Laboratory, Report Analysis and Archive System (RAAS) at <https://raas.anl.gov/> or upon request DNDO.SLA@dhs.gov. Additionally, the SLTT community can reach out to the Data Mining, Analysis, and Modeling Cell (DMAMC) to get more information about their specific needs. The DMAMC can be reached at dmamc@hq.dndo.gov.

Mobile Detection Deployment Units. DNDO’s Mobile Detection Deployment Units (MDDUs) are national R/N detection “surge” assets, designed to supplement first responders’ existing R/N detection and reporting capabilities, especially in support of national and other special security events. MDDUs contain R/N detection equipment

(MDDUs are equipped for approximately 40 emergency responders while others are equipped for 20 responders) housed in a mobile trailer package. These detection packages are distributed across the United States and maintained through a DNDO agreement with the Department of Energy Radiological Assistance Program. MDDU equipment includes portable backpack R/N detection units, high and low-resolution radiation identification hand-held instruments, and personal radiation detection devices. Each MDDU is accompanied by a technical support staff to train personnel on the use of equipment and to help integrate these capabilities into existing operations. This equipment is available at no cost to the stakeholder and requests for MDDU support should be directed through DNDO at DNDO_MDDU_Request@hq.dhs.gov.

E.3. DNDO Training

DNDO has developed nationally-recognized guidelines, standards, training, and qualifications to more effectively increase R/N detection, operations, and planning capabilities. DNDO provided training is available at no cost to the stakeholder, minus backfill and overtime. R/N detection training is available via a variety of different platforms, and includes the following:

Instructor-led (IL) courses

- QuickStart: Two day course that focuses on threat awareness and radiation detection equipment applications within the PRND mission functions.
- Radiological Nuclear Detection Concepts, Tactics and Integration Course (RCTIC): Three-day course that focuses on the integration of federal, state, local, tribal and territorial (FSLT&T) and R/N detection assets into public event security plans and operations. This course is taught in both a residential and mobile format.

Web-based and Virtual courses (eLearning)

- HSIN DNDO Training Site: This site offers many training resources including recommendations for intended audience, course length, learning objectives, prerequisites, enrollment methods. and online courses covering the following capabilities:
 - Basic (Awareness)
 - Intermediate (Operational Performance)
 - Advanced (Management, Planning and Technical Performance)
 - Executive (Executive Management)
- Refresher Training: Most R/N detection skills require a minimum of yearly retraining to maintain proficiency. Frequency of training varies by the skill learned but most require a minimum of yearly retraining. The DNDO Training program developed web-based training (WBT) courses that are easily accessible by stakeholders through mobile devices in the field. These courses meet the minimum requirement for an operator to maintain the particular skill being trained.

- “Just in Time” (JIT) Training: This courseware is intended for operators in the field needing “just in time” training, and was developed for tablet and smart phone based mobile application. The Electronic Performance Support System provides operators with 3-5 training videos on topics ranging from field operations to equipment refresher training.

DNDO Sponsored Partner Training

- The Center for Domestic Preparedness (CDP) and the Counter-Terrorism Operations Support at the Center for Radiological/Nuclear Training (CTOS): As training providers, meets DNDO’s Training Program needs for reaching state and local first responders with training and qualification courses funded, in part, through the FEMA National Training and Education Division (NTED). As a consortium member, FEMA funds CDP and CTOS to provide training to all disciplines within the first responder world, including courses focused on the preventive R/N detection mission space. DNDO, CDP and CTOS are contractually engaged to ensure training products meet standards established by DNDO. Delivery of training funded by FEMA provides opportunities for state and local program development that might not otherwise be present.

E.4. DNDO Exercises and Evaluation

DNDO assists in the development and implementation of improvement plans and protocols, as well as the design, development, and conduct of R/N detection exercises for state and local entities in compliance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology. DNDO exercise support is available to help state and local jurisdictions evaluate and improve their own detection capabilities. DNDO has also developed a comprehensive library of standardized, exercise templates and guidance materials for the design, conduct, analysis, and reporting of detection exercises. This library of material is continuously updated as an added support service to state and local stakeholders.

DNDO also provides overt and covert operational assessments and open source adversarial assessments. Operational assessments assist partner agencies in assessing the effectiveness of their R/N detection capability in an actual operating environment, and include the use of threat materials and mock devices. Adversarial assessments are from an outsider’s perspective and do not rely upon “inside” information of current or planned capabilities. The assessment team replicates an adversary looking to determine the Nation’s capability to detect and defeat an R/N attack. DNDO assessments identify and evaluate vulnerabilities and best practices across the GNDA and supports improvements over time.

E.5. DNDO Operational Support

DNDO also provides SLTT organizations with a direct link to technical reachback for alarm adjudication via the Joint Analysis Center Collaborative Information System (JACCIS). Joint Analysis Center (JAC) personnel facilitate 24/7 adjudication by assisting these organizations in obtaining and maintaining JACCIS accounts, inputting their data

into the system, and providing technical information to alarm adjudicators to aid their decision-making processes.

Call (866) 789-8304 or email dndo.jac2@hq.dhs.gov to request a JACCIS account or get more information on the GNDA.

Additionally, *The Source* is the JAC's weekly informational bulletin consisting of:

- A summary of Nuclear Regulatory Commission (NRC) lost and stolen source information of significance posted on their Event Notification page for the previous calendar week
- A summary of GNDA-related news
- R/N detection information

E.6. Securing the Cities (STC) Program

The STC Program assists state, local, and tribal stakeholders design and implement or enhance existing architectures for coordinated and integrated detection and interdiction of nuclear materials out of regulatory control that may be used as a weapon within high-threat/high-density UASI areas. Urban Areas are selected through a competitive application process. The program assists these jurisdictions by using cooperative agreements to enhance regional capabilities to detect, identify, and interdict nuclear materials that are out of regulatory control, guide the coordination of federal, state, local, and tribal entities in their roles defined by the GNDA and encourage participants to sustain their nuclear detection program over time.

Appendix A: Allowable R/N Detection Expenses Chart

	Emergency Management Performance Grants (EMPG)	Homeland Security Grant Program (HSGP)			Tribal Homeland Security Grant Program (THSGP)	Transit Security Grant Program (TSGP)	Intercity Passenger Rail (IPR or Amtrak)	Port Security Grant Program (PSGP)
		State Homeland Security Program (SHSP)	Urban Areas Security Initiative (UASI)	Operation Stonegarden (OPSG)				
Purpose	All-hazards management	State preparedness	Urban area preparedness	Border LE operations	Tribal preparedness	Transportation infrastructure security activities	Amtrak security	Port security
Eligible Funding Recipient	All 56 states & territories, Marshall Islands, Micronesia	All 56 states & territories, Marshall Islands, Micronesia	Designated urban areas	Local/tribal government in border states	Directly eligible Tribes	Owners/operators of transit systems (intra-city/commuter bus, ferries, all passenger rail)	Amtrak	1-Port authorities, owners, & operators; 2-Area Maritime Security Committee Members
Allowable RND PLANNING Costs	<ul style="list-style-type: none"> Developing plans Planning staff salaries 	<ul style="list-style-type: none"> Developing plans Planning staff salaries OT/backfill and travel 			<ul style="list-style-type: none"> Developing plans Planning staff salaries OT/backfill and travel 		<ul style="list-style-type: none"> Developing plans Planning staff salaries 	<ul style="list-style-type: none"> Developing plans Planning staff salaries
Allowable RND ORGANIZATION or OPERATIONAL Costs	Emergency manager salaries	50% of funds eligible for: <ul style="list-style-type: none"> Intelligence Analysts OT for federally-requested info-sharing, intel & investigative homeland security activities (e.g., JTTF) Operational OT/Backfill for CIKR security 		50% funds eligible for: <ul style="list-style-type: none"> Operational OT/border LE activities backfill 	Same as SHSP except CIKR security	Operational activities <ul style="list-style-type: none"> Ops. Packages (OPacks) Top Transit Asset List (TTAL) remediation 		Operational Package (OPack): <ul style="list-style-type: none"> Explosives Detection Canine Team
Allowable RND EQUIPMENT Costs (PRD, RIID, Mobile, RPM, Backpack)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (Prefers QTL over ICE)
Allowable RND TRAINING Costs	<ul style="list-style-type: none"> OT/backfill & training travel Training coordinator salaries 	<ul style="list-style-type: none"> OT/backfill and training travel Training coordinator salaries 			<ul style="list-style-type: none"> OT/backfill & training travel Training coordinator salaries 	<ul style="list-style-type: none"> OT/backfill & training travel Training coordinator salaries 	<ul style="list-style-type: none"> OT/backfill & training travel Training coordinator salaries 	<ul style="list-style-type: none"> OT/backfill & training travel Training coordinator salaries
Allowable RND EXERCISE Costs	<ul style="list-style-type: none"> Develop & conduct exercise OT/backfill & exercise travel Exercise coordinator salaries 	<ul style="list-style-type: none"> Develop & conduct HSEEP exercise OT/backfill and exercise travel Exercise coordinator salaries 			<ul style="list-style-type: none"> Develop & conduct exercise OT/backfill & exercise travel Exercise coordinator salaries 	<ul style="list-style-type: none"> Develop & conduct exercise OT/backfill & exercise travel Exercise coordinator salaries 	<ul style="list-style-type: none"> Develop & conduct exercise OT/backfill & exercise travel Exercise coordinator salaries 	<ul style="list-style-type: none"> Develop & conduct exercise OT/backfill & exercise travel Exercise coordinator salaries

U.S. DEPARTMENT OF HOMELAND SECURITY | FEMA PREPAREDNESS GRANTS

Equipment	AEL Category	AEL Number	AEL Description	EMPG	HSGP			THSGP	TSGP	IPR	PSGP
					SHSP	UASI	OPSG				
Personal Alarming Radiation Detector	Radiological Detection, Portable	07RD-01-PDGA	Personal radiation (gamma and neutron) detection device which provides an alarm based on detection, but does not quantify dose-rate.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Radionuclide Isotope Identifier	Radiological Detection, Portable	07RD-01-RIID	Handheld spectrometer for nuclide identification using crystals such as NaI, CZT, LaBr, and Germanium.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
High-Sensitivity Radionuclide Detector	Radiological Detection, Transportable Lab Equipment	07RD-02-DRHS	Radionuclide detector utilizing high-purity crystal such as germanium.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standoff Gamma/Neutron Detector	Radiological Detection, Standoff Detectors	07RD-04-SGND	A detector that can detect gamma/neutron radiation at a stand-off distance of at least 50 feet and specify the type and location of radiation sources, while maintaining sufficient energy resolution and sensitivity to discriminate between normally-occurring radioactive materials, background and	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pulsed Neutron Activation System, Non-Invasive	Inspection and Screening System, Inspection Systems	15IN-00-PLSN	Screening system utilizing pulsed neutrons. Non-destructive detection of CWAs in sealed containers.	No	Yes	Yes	Yes	Yes	No	No	Yes
Mobile Search and Detection System X-Ray	Inspection and Screening System, Inspection Systems	15IN-00-XRAY	Portable X-Ray systems for use in search and screening operations	No	Yes	Yes	Yes	Yes	No	No	Yes
Portal Monitors	Inspection and Screening System, Screening Systems	15SC-00-PMON	Systems to scan vehicles/cargo for radioactive content. Various sizes for vehicles, packages (large and small) and pedestrians. Does not identify radionuclide	No	Yes	Yes	Yes	Yes	No	No	Yes
Spectroscopic Portal Monitors	Inspection and Screening System, Screening Systems	15SC-00-PMSP	Systems to scan vehicles/cargo for radioactive content and identify source radionuclide. Variants include vehicle, rail, and seaport container configurations.	No	Yes	Yes	Yes	Yes	No	No	Yes

Appendix B: Preventive Radiological and Nuclear Detection NIMS Resource Types (*under FEMA review*)



Domestic Nuclear Detection Office

**Typed Resource
Definitions
Preventive Radiological/Nuclear
Detection (PRND) Resources**

October 2014

DNDO Document Number 400-INT-115300v2.1

OCT 2014

PREVENTIVE RADIOLOGICAL/NUCLEAR DETECTION



VERSION HISTORY

Version Number	Approved By	Approval Date	Description of Change
1.0	DNDO/ State and Local Stakeholders	June 2011	<ul style="list-style-type: none"> Document Release
2.0	DNDO/State and Local Stakeholders	May 2014	<ul style="list-style-type: none"> Updated to the Personal Radiation Detector, Radio-Isotope Identification Device, Human-Portable Detector (Backpack) and Vehicle-Mounted Detection System equipment types. Reduced number of personnel and amount of equipment for Type 1-3 Law Enforcement and Multi-Disciplinary PRND Teams. Removed Type 4 Law Enforcement and Multi-Disciplinary PRND Teams. Updated the Team Operator and Team Leader job titles
2.1	DNDO/ State and Local Stakeholders	October 2014	<ul style="list-style-type: none"> Added new Type 2 Law Enforcement and Multi-Disciplinary PRND Teams and shifted down original Type 2 and 3 Teams to Type 3 and 4 Teams



PERSONAL RADIATION DETECTOR (PRD)

DESCRIPTION	An alarming personal radiation detector worn on the body to detect photons (and in some cases neutrons).		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Equipment
OVERALL FUNCTION	Used to detect the presence of radiation in a limited area in the vicinity of the equipment operator.	COMPOSITION AND ORDERING SPECIFICATIONS	

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Radiation Type	Radiation Detection	Gamma/Neutron	Gamma		
			NOTES: Not Specified			

COMMENTS

1. Additional optional features: isotope identification (spectroscopic), dose rate capable, count rates and other types of displays, low profile mode (Bluetooth or wireless), ruggedized, network capable, GPS.
2. Gamma Detector types would include sodium iodide (NaI), cesium iodide (CsI), CdZnTe (CZT) solid state detectors and other scintillator or solid state detectors. Less effective PRND detector types would include gas filled detectors such as Geiger Mueller or Ion Chamber detectors.

REFERENCES

1. ANSI/IEEE N42.32-2006 American National Standard Performance Criteria for Alarming Personal Radiation Detectors for Homeland Security.
2. ANSI/IEEE N42.48-2008 American National Standard Performance Requirements for Spectroscopic Personal Radiation Detectors (SPRDs) for Homeland Security.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability



RADIO-ISOTOPE IDENTIFICATION DEVICE (RIID)

DESCRIPTION	A portable radiation detector with gamma spectroscopic capabilities and neutron indication. Note: also known as a radionuclide identifier.		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Equipment
OVERALL FUNCTION	Primarily used to identify the radioisotope of radiological and nuclear material. May also be used to initially detect the presence of radiological and nuclear material.	COMPOSITION AND ORDERING SPECIFICATIONS	

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Energy Resolution at 662 KeV full width half maximum (FWHM)	Isotope Identification	High Resolution < 1.0%	Medium/Low Resolution 1.0% -9.0%		
			NOTES: Not Specified			

COMMENTS

1. Additional optional features: Gamma and neutron radiation detection, dose rate capable, low profile mode (Bluetooth or wireless), ruggedized, network capable, GPS.

REFERENCES

1. ANSI/IEEE N42.34-2006 American National Standard Performance Criteria for Hand-Held Instruments for the Detection and Identification of Radionuclides.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



HUMAN-PORTABLE DETECTOR (BACKPACK)

DESCRIPTION	Instrument composed of several radiation detection components that are placed inside a backpack or other similar enclosure with an optional external control device (ANSI/IEEE N42.53 – 2013 American National Standard Performance Criteria for Backpack Based Radiation Detection Systems used for Homeland Security).		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Equipment
OVERALL FUNCTION	Primarily used to detect the presence of radiological and nuclear material in a wide area around the operator. Due to the larger detector element and power source, the detection range of this device may be greater than a PRD or RIID.	COMPOSITION AND ORDERING SPECIFICATIONS	

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Radiation Type	Radiation Detection	Gamma/Neutron	Gamma/Neutron	Gamma	Gamma
NOTES: Not Specified						
Equipment	Ability to identify isotope	Isotope Identification	Yes	No	Yes	No
NOTES: Not Specified						

COMMENTS

1. Additional optional features: Gamma and neutron radiation detection, dose rate capable, low profile mode (Bluetooth or wireless), ruggedized, network capable, GPS.

REFERENCES

1. ANSI/IEEE N42.43-2006 American National Standard Performance Criteria for Mobile and Transportable Radiation Monitors Used for Homeland Security.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



VEHICLE MOUNTED DETECTION SYSTEM

DESCRIPTION	A Vehicle-Mounted Detection System is an instrument transported on a vehicular platform (truck, boat or aircraft) for detecting radiological and nuclear material.		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Equipment
OVERALL FUNCTION	Primarily detects the presence of radiological and nuclear material and used to identify radioisotopes in a wide area around the vehicular platform. The system may be permanently mounted in a vehicular platform (e.g. truck, boat or aircraft) or relocatable between these platforms. Due to the larger detector element and power source, the detection range of this device may be greater than a PRD, RIID, or backpack-type detector.	COMPOSITION AND ORDERING SPECIFICATIONS	

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Radiation Type	Radiation Detection	Gamma/Neutron <i>NOTES: Not Specified</i>	Gamma/Neutron	Gamma	Gamma
Equipment	Ability to identify isotope	Isotope Identification	Yes <i>NOTES: Not Specified</i>	No	Yes	No

COMMENTS

1. Additional optional features: Gamma and neutron radiation detection, dose rate capable, low profile mode (Bluetooth or wireless), ruggedized, network capable, GPS.

REFERENCES

1. ANSI/IEEE N42.43-2006 American National Standard Performance Criteria for Mobile and Transportable Radiation Monitors Used for Homeland Security.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



LAW ENFORCEMENT PREVENTIVE RADIOLOGICAL/NUCLEAR DETECTION (PRND) TEAM

DESCRIPTION	A team composed of sworn law enforcement personnel dedicated to the detection of radiological and nuclear materials.		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Team
OVERALL FUNCTION	The team utilizes PRND tools and training to detect nuclear and radiological material out of regulatory control. This team is capable of handling interdiction and other law enforcement PRND missions.	COMPOSITION AND ORDERING SPECIFICATIONS	<ol style="list-style-type: none"> 1. Logistics for deploying this team (e.g. security, lodging, transportation, meals, etc.) are to be discussed prior to deployment of this resource. 2. Teams can work up to 12 hours per shift, and are self-sustained for 72 hours. 3. Additional PRND Team operators may be ordered within span of control.

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Team	Capabilities	Radiation Detection and Identification Capability	Same as Type 2 plus: Advanced Wide Area Search Advanced Secondary Inspection	Same as Type 3 plus: Wide Area Search	Same as Type 4 plus: Secondary Inspection	Primary Screening
NOTES: Not Specified						
Personnel	Per Team	Total	Same as Type 2	1 PRND Team Leader 5-7 PRND Operators	Same as Type 4	1 PRND Team Leader 2-3 PRND Operators
NOTES: Not Specified						
Equipment	Per Team	Radiation Detection	Same as Type 2 plus: 1 Type 1-2 Mobile Detection System 1 Radiation Survey Meter	6-8 Type 1-2 PRD 2-4 Type 1-2 Backpack	Same as Type 4	3-4 Type 1-2 PRD
NOTES: Any team operating with only PRDs should have established access to a RIID to conduct secondary screening.						
Equipment	Per Team	Isotope Identification	Same as Type 3 plus: 1 Type 1 RIID	Same as Type 3	1-2 Type 2 RIID	None
NOTES: Not Specified						



RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Per Team	Communication	Same as Type 3	Same as Type 3	Same as Type 4 plus: The ability to transmit spectra and other data to technical reachback.	Intra-team communications
NOTES: Not Specified						

COMMENTS

REFERENCES

1. EMAC Resource Request Checklist.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



MULTI-DISCIPLINARY PREVENTIVE RADIOLOGICAL/NUCLEAR DETECTION (PRND) TEAM

DESCRIPTION	A team composed of public safety personnel from various backgrounds dedicated to the detection of radiological and nuclear materials.		
	RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND Team
OVERALL FUNCTION	The team utilizes PRND tools and training to detect nuclear and radiological material out of regulatory control. This team may not be capable of handling interdiction and other law enforcement PRND missions unless assigned sworn law enforcement personnel.		COMPOSITION AND ORDERING SPECIFICATIONS 1. Logistics for deploying this team (e.g. security, lodging, transportation, meals, etc.) are to be discussed prior to deployment of this resource. 2. Teams can work up to 12 hours per shift, and are self-sustained for 72 hours. 3. Additional PRND Team operators may be ordered within span of control.

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Team	Capabilities	Radiation Detection and Identification Capability	Same as Type 2 plus: Advanced Wide Area Search Advanced Secondary Inspection	Same as Type 3 plus: Wide Area Search	Same as Type 4 plus: Secondary Inspection	Primary Screening
			NOTES: Not Specified			
Personnel	Per Team	Total	Same as Type 2	1 PRND Team Leader 5-7 PRND Operators	Same as Type 4	1 PRND Team Leader 2-3 PRND Operators
			NOTES: Not Specified			
Equipment	Per Team	Radiation Detection	Same as Type 2 plus: 1 Type 1-2 Mobile Detection System 1 Radiation Survey Meter	6-8 Type 1-2 PRD 2-4 Type 1-2 Backpack	Same as Type 4	3-4 Type 1-2 PRD
			NOTES: Any team operating with only PRDs should have established access to a RIID to conduct secondary screening.			
Equipment	Per Team	Isotope Identification	Same as Type 3 plus: 1 Type 1 RIID	Same as Type 3	1-2 Type 2 RIID	None
			NOTES: Not Specified			



RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Per Team	Communications	Same as Type 3	Same as Type 3	Same as Type 4 plus: The ability to transmit spectra and other data to technical reachback.	Intra-team communications
NOTES: Not Specified						

COMMENTS

REFERENCES

1. EMAC Resource Request Checklist.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



MARITIME LAW ENFORCEMENT PREVENTIVE RADIOLOGICAL/NUCLEAR DETECTION (PRND) TEAM

DESCRIPTION	A team composed of maritime law enforcement personnel dedicated to the detection of radiological and nuclear materials.		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Team
OVERALL FUNCTION	The team utilizes PRND tools and training to detect nuclear and radiological material out of regulatory control in the maritime environment. This team is capable of handling interdiction and other law enforcement PRND missions.	COMPOSITION AND ORDERING SPECIFICATIONS	1. Logistics for deploying this team (e.g. security, lodging, transportation, meals, etc.) are to be discussed prior to deployment of this resource. 2. Teams can work up to 12 hours per shift, and are self-sustained for 72 hours. 3. Additional PRND Team operators may be ordered within span of control.

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Team	Capabilities	Radiation Detection and Identification Capability	Primary Screening Secondary Inspection Wide Area Search	Primary Screening Secondary Inspection	Primary Screening	
NOTES: Not Specified						
Personnel	Per Team	Total	Same as Type 2	Same as Type 3	1 Coxswain 2-3 PRND Operators	
NOTES: Not Specified						
Equipment	Per Team	Transportation Resources	Same as Type 2	Same as Type 3	1 vessel	
NOTES: Not Specified						
Equipment	Ability to detect radiation	Radiation Detection	Same as Type 2 plus 1 Type 1-2 Backpack or 1 Type 1-4 Mobile Detection System 1 Radiation Survey Meter	Same as Type 3	2-4 Type 1-2 PRDs	
NOTES: Any teams operating with only PRDs should have established access to RIIDs to conduct secondary screening.						



RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Ability to identify isotope	Isotope Identification	Same as Type 2	1 Type 1-2 RIID	None	
NOTES: Not Specified						
Equipment	Per Team	Communication	Same as Type 2	Intra-team communications and ability to transmit spectra and other data to technical reachback.	Intra-team communications	
NOTES: Not Specified						

COMMENTS

REFERENCES

1. EMAC Resource Request Checklist.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



MARITIME MULTI-DISCIPLINARY PREVENTIVE RADIOLOGICAL/NUCLEAR DETECTION (PRND) TEAM

DESCRIPTION	A team composed of maritime public safety personnel from various backgrounds dedicated to the detection of radiological and nuclear materials.		
RESOURCE CATEGORY	Preventive Radiological/Nuclear Detection	RESOURCE KIND	Team
OVERALL FUNCTION	The team utilizes PRND tools and training to detect nuclear and radiological material out of regulatory control in the maritime environment. This team may not be capable of handling interdiction and other law enforcement PRND missions unless assigned sworn law enforcement personnel.	COMPOSITION AND ORDERING SPECIFICATIONS	1. Logistics for deploying this team (e.g. security, lodging, transportation, meals, etc.) are to be discussed prior to deployment of this resource. 2. Teams can work up to 12 hours per shift, and are self-sustained for 72 hours. 3. Additional PRND Team operators may be ordered within span of control.

RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Team	Capabilities	Radiation Detection and Identification Capability	Primary Screening Secondary Inspection Wide Area Search	Primary Screening Secondary Inspection	Primary Screening	
			NOTES: Not Specified			
Personnel	Per Team	Total	Same as Type 2	Same as Type 3	1 Coxswain 2-3 PRND Operators	
			NOTES: Not Specified			
Equipment	Per Team	Transportation Resources	Same as Type 2	Same as Type 3	1 vessel	
			NOTES: Not Specified			
Equipment	Per Team	Radiation Detection	Same as Type 2 plus 1 Type 1-2 Backpack or 1 Type 1-4 Mobile Detection System 1 Radiation Survey Meter	Same as Type 3	2-4 Type 1-2 PRDs	
			NOTES: Any teams operating with only PRDs should have established access to RIIIDs to conduct secondary screening.			



RESOURCE TYPES			TYPE 1	TYPE 2	TYPE 3	TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Per Team	Isotope Identification	Same as Type 2	1 Type 1-2 RIID	None	
NOTES: Not Specified						
Equipment	Per Team	Communication	Same as Type 2	Intra-team communications and ability to transmit spectra and other data to technical reachback.	Intra-team communications	
NOTES: Not Specified						

COMMENTS

REFERENCES

- EMAC Resource Request Checklist.

NOTE

Nationally typed resources represent the minimum criteria for the associated component and capability.



Position Titles

This section contains Qualification Charts for PRND Team Leader, PRND Operator, PRND Secondary Screener and PRND Primary Screener position titles under the National Incident Management System (NIMS).

The following table shows the six basic categories of criteria employed:

Categories

The categories listed under the required and recommended criteria are defined as follows:

Education	Formal instruction based on a curriculum that prepares an individual with the core knowledge and skills for entry into a discipline and for performing job functions.
Training	Instruction and/or activities that enhance an individual's core knowledge increase skill set and proficiency as well as strengthen and augment abilities.
Experience	Time required in a job function for an individual to attain proficiency in applying knowledge, skills and abilities.
Physical/Medical Fitness	Physical and medical considerations, that when applied, help to ensure safe performance in potentially hazardous environments.
Currency	Functioning in the ICS position during a qualifying incident, approved exercise, drill, training or simulation at least once every five years.
Professional and Technical Licenses and Certifications	Licensure refers to the granting of a 'permission to practice.' Licenses are usually issued in order to regulate some activity that is deemed to be dangerous, a threat to the person or the public, or which involves a high level of specialized skill. Certification is a designation earned by a person to assure qualification to perform a job or task.



PREVENTIVE RADIOLOGICAL NUCLEAR DETECTION (PRND) TEAM LEADER

TYPE	TYPE 1	TYPE 2
DESCRIPTION	<p>The Preventive Radiological Nuclear Detection Team Leader</p> <ol style="list-style-type: none"> Has the overall authority and/or responsibility for directing the operations of an assigned RND typed team, staffed with typed team members and or assembled single resources. Is trained to operate under steady state, enhanced steady state operations. NSSE and RNSO operations. 	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Specified	Not Specified
NOTES: Not Specified		
TRAINING	<p>All training indicated for the NIMS Type 1 RND Team Leader including:</p> <ol style="list-style-type: none"> ICS/IS-100: Introduction to Incident Command System (ICS) ICS/IS-200: Basic ICS IS-700: National Incident Management System (NIMS), An Introduction <p>General training with additional focus on discipline and type (position)</p> <ol style="list-style-type: none"> Training that meets the competencies and behaviors identified for the position of RND Type 1 Team Leader (Task Book) as verified by the Authority Having Jurisdiction (AHJ) <p>Awareness-level training of the following:</p> <ol style="list-style-type: none"> Local policies and CONOPs related to RND operations Federal, state and local law that applies to RND operations Safety hazards and occupational dose limits based on agency policy <p>Capability based training in the following:</p> <ol style="list-style-type: none"> Deployment procedures including processing of resource orders, team time reports, personnel evaluations and unit log Maintain records of alarms and adjudication as required Assessment of team safety Application of the Incident Command System (ICS) 	Not Applicable

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TYPE	TYPE 1	TYPE 2
	<ul style="list-style-type: none"> a. Follow chain of command b. Maintain appropriate span of control c. Use appropriate ICS forms d. Use appropriate ICS terminology e. Understand the options for RND asset integration into command structure f. Understand IAPs and have ability to brief subordinates g. Ability to brief relief forces and command structure h. Conduct of After Action Reviews <p>5. Team demobilization</p> <p>Training specific to the RND Team Leader environment:</p> <ul style="list-style-type: none"> 1. Understanding of organization structure, reporting procedures, and chain of command of assigned resources 2. Organize assigned resources into configurations which meet incident/tactical objectives 3. Establishment of work assignments and performance expectations, monitor performance, and provide feedback 4. Coordination of interdependent activities 5. Coordination of tactical activities with multiple disciplines 6. Knowledge of on limitations of authority for deployments outside primary jurisdiction 7. Ability to configure low profile communication equipment and brief team personnel on its operation 	
NOTES: Not Specified		
EXPERIENCE	<p>Knowledge Skills and Abilities:</p> <ul style="list-style-type: none"> 1. Knowledge of the prevent mission framework 2. Knowledge of radiation as it pertains to the Team Leader Type 1 position 3. Knowledge of team issued equipment and operations 4. Ability to perform advanced RND operations 5. Assume position responsibilities and lead personnel 6. Communicate effectively 7. Ensure completion of assigned tasks to meet identified objectives 8. Ability to laterally transfer personnel and equipment in your charge to response operation positions 	Not Applicable

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TYPE	TYPE 1	TYPE 2
	<p>9. Ability to ensure qualifications, capabilities, typing and credentialing of resources to complete assignment</p> <p>Experience:</p> <ol style="list-style-type: none"> 1. Demonstrated experience validated by the AHJ in the following: Completion of the Team Leader Position Task Book (PTB) or equivalent documentation that validates and verifies (by AHJ) the successful completion of all skills, and demonstrated ability to perform skills in drills, exercises and/or actual operations 2. Certified as RND Team Operator Type 1 by AHJ <p>NOTES: Not Specified</p>	
<p align="center">PHYSICAL/ MEDICAL FITNESS</p>	<p>Meets all medical and physical requirements established by the AHJ, which includes the physical capability to work long hours in adverse and potentially extreme environmental conditions.</p> <p>NOTES: Not Specified</p>	<p align="center">Not Applicable</p>
<p align="center">CURRENCY</p>	<ol style="list-style-type: none"> 1. Annual Participate in RND operation (real event, exercises, or drills while assigned as Team Leader) 2. Biannual Complete refresher training on mission and position updates and equipment operation <p>NOTES: Completion of Team Leader currency requirements will fulfill all currency requirements for Team Operator</p>	<p align="center">Not Applicable</p>
<p align="center">PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS</p>	<p>Clearance: As determined by the AHJ</p> <p>NOTES: Not Specified</p>	<p align="center">Not Applicable</p>

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TYPE	TYPE 3	TYPE 4
DESCRIPTION	Not Applicable	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Specified	Not Specified
	NOTES: Not Specified	
TRAINING	Not Applicable	Not Applicable
	NOTES: Not Specified	
EXPERIENCE	Not Applicable	Not Applicable
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Not Applicable	Not Applicable
	NOTES: Not Specified	
CURRENCY	Not Applicable	Not Applicable
	NOTES: Completion of Team Leader currency requirements will fulfill all currency requirements for Team Member	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Applicable	Not Applicable
	NOTES: Not Specified	



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ORDERING SPECIFICATIONS OR DESIGNATIONS

- √ Can be ordered as a single resource
- Can be ordered in conjunction with a NIMS typed team ()
- Can be ordered in conjunction with a NIMS typed unit ()

REFERENCES

- 1.
- 2.

NOTE

1. Nationally typed resources represent the minimum criteria for the associated category
2. Have ability to deploy and be self-sufficient for up to 72 hours



PREVENTIVE RADIOLOGICAL NUCLEAR DETECTION (PRND) TEAM OPERATOR

TYPE	TYPE 1	TYPE 2
DESCRIPTION	The Preventive Radiological Nuclear Detection Team Operator: 1. Is qualified to operate during steady state, enhanced steady state, NSSE and RNSO level operations. 2. Has detailed knowledge of the RND equipment used by their agency 3. Is capable of tailoring equipment setup and settings to enhance detection for a given isotope or isotopes 4. Is capable of low visibility operations 5. Has a basic ability to recognize when and how to improve field spectroscopy	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Specified	Not Specified
NOTES: Not Specified		
TRAINING	All training indicated for the NIMS Type 1 RND Team Operator including: 1. ICS/IS-100: Introduction to Incident Command System (ICS) 2. ICS/IS-200: Basic ICS 3. IS-700: National Incident Management System (NIMS), An Introduction General training with additional focus on discipline and type (position) 1. Training that meets the competencies and behaviors identified for the position of RND Type 1 Team Operator (Task Book) as verified by the Authority Having Jurisdiction (AHJ) Awareness-level training of the following: 1. Local policies and CONOPs related to RND operations 2. Federal, state and local law that applies to RND operations 3. Safety hazards and occupational dose limits based on agency policy Capability based training in the following: 1. RND operational missions a. Steady State b. Enhanced Steady State	Not Applicable



TYPE	TYPE 1	TYPE 2
	<ul style="list-style-type: none"> c. Radiological Nuclear Search Operations 2. RND team typed equipment and its application in the response mission 3. RDD and IND specific training for Prevent and Response 4. Interfacing with state and local fusion/intel centers to obtain general and specific threat briefings 5. Sensor orientation and the detector optimal detection zone for all issued equipment 6. Assessing event/venue constraints and limitations 7. Crime scene and evidence preservation 8. Team tactics for Prevent operations <p>Training specific to the RND Team Operator environment:</p> <ul style="list-style-type: none"> 1. Perform as agency Equipment SME <ul style="list-style-type: none"> a. Knowledge of equipment selection process b. Ability to configure equipment for overt and low visibility operations c. Knowledge of equipment types, their capabilities, limitations and accuracy d. Knowledge of inspection and preparation steps pre-employment e. Ability to provide just-in-time training to non-RND personnel 2. Knowledge of equipment maintenance, updates and appropriate field repairs authorized by AHJ CONOPs <ul style="list-style-type: none"> a. Demonstrate the ability to perform field repairs b. Demonstrate ability to maintain equipment records c. Demonstrate ability to perform firmware updates as applicable 3. Perform overt and low visibility operations including: <ul style="list-style-type: none"> a. Team tactics for distraction b. Dividing teams c. Concealing detectors, visual and audible 4. Chokepoint and checkpoint operations 5. Wide area and limited area sweeps 6. Facility Sweeps 	
<p>NOTES: Not Specified</p>		

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TYPE	TYPE 1	TYPE 2
EXPERIENCE	<p>Knowledge Skills and Abilities:</p> <ol style="list-style-type: none"> 1. Knowledge of the prevent mission framework 2. Knowledge of radiation as it pertains to the Team Operator Type 1 position 3. Knowledge of team issued equipment and operations 4. Ability to perform advanced RND operations 5. Communicate effectively 6. Ensure completion of assigned tasks to meet identified objectives 7. Knowledge and ability to integrate team assets into Joint Hazard Assessment Teams (JHAT) or other combinations of resources to support special events and operations 8. Ability to receive and brief Team Operators, Team Leader and other RND assets based on AHJ CONOPs 9. Understanding of search and seizure requirements <p>Experience:</p> <ol style="list-style-type: none"> 1. Demonstrated experience validated by the AHJ in the following: Completion of the Team Operator Position Task Book (PTB) or equivalent documentation that validates and verifies (by AHJ) the successful completion of all skills, and demonstrated ability to perform skills in drills, exercises and/or actual operations 2. Certified Primary Screener Type 1 by AHJ 3. Certified Secondary Screener Type 1 by AHJ 	Not Applicable
NOTES: Not Specified		
PHYSICAL/ MEDICAL FITNESS	Meets all medical and physical requirements established by the AHJ, which includes the physical capability to work long hours in adverse and potentially extreme environmental conditions.	Not Applicable
NOTES: Not Specified		
CURRENCY	<p>Annual</p> <ol style="list-style-type: none"> 1. Participate in annual RND operation (real event, exercises, or drills while assigned as a team operator) <p>Biannual</p> <ol style="list-style-type: none"> 2. Complete refresher training on mission, position updates and equipment operation 	Not Applicable

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TYPE	TYPE 1	TYPE 2
	NOTES: Completion of Team Operator currency requirements will fulfill all currency requirements for Primary and Secondary Screener	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Clearance: As determined by the AHJ	Not Applicable
	NOTES: Not Specified	



TYPE	TYPE 3	TYPE 4
DESCRIPTION	Not Applicable	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Specified	Not Specified
	NOTES: Not Specified	
TRAINING	Not Applicable	Not Applicable
	NOTES: Not Specified	
EXPERIENCE	Not Applicable	Not Applicable
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Not Applicable	Not Applicable
	NOTES: Not Specified	
CURRENCY	Not Applicable	Not Applicable
	NOTES: Not Specified	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Applicable	Not Applicable
	NOTES: Not Specified	



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ORDERING SPECIFICATIONS OR DESIGNATIONS

- √ Can be ordered as a single resource
- Can be ordered in conjunction with a NIMS typed team ()
- Can be ordered in conjunction with a NIMS typed unit ()

REFERENCES

- 1.
- 2.

NOTE

1. Nationally typed resources represent the minimum criteria for the associated category
2. Have ability to deploy and be self-sufficient for up to 72 hours



PREVENTIVE RADIOLOGICAL NUCLEAR DETECTION (PRND) SECONDARY SCREENER

TYPE	TYPE 1	TYPE 2
DESCRIPTION	<p>The Preventive Radiological Nuclear Detection Secondary Screener</p> <ol style="list-style-type: none"> 1. Has the authority and /or responsibility for performing the secondary screening tasks to include: <ol style="list-style-type: none"> a. Interfacing with the Primary Screener b. Collection of Spectra c. Radioisotope identification d. Reachback e. Assessment f. Adjudication or elevate as needed 2. Operates during steady state or enhanced steady state modes of operation 	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Specified	Not Applicable
NOTES: Not Specified		
TRAINING	<p>All training indicated for the NIMS Type 1 Secondary Screener, including:</p> <ol style="list-style-type: none"> 1. ICS/IS-100: Introduction to Incident Command System (ICS) 2. ICS/IS-200: Basic ICS 3. IS-700: National Incident Management System (NIMS), An Introduction <p>General training with additional focus on discipline and type (position)</p> <ol style="list-style-type: none"> 1. Awareness level Radiological/Nuclear WMD course per NFPA 472 or equivalent, approved by the Authority Having Jurisdiction (AHJ) <p>Awareness-level training of the following:</p> <ol style="list-style-type: none"> 1. Local policies and CONOPs related to Secondary Screening operations 2. Federal, state and local law that applies to Secondary Screening 3. Safety hazards and occupational dose limits based on agency policy <p>Capability based training in the following:</p>	Not Applicable



TYPE	TYPE 1	TYPE 2
	<ol style="list-style-type: none"> 1. Principles of radiation detection and the purpose of gamma spectroscopy 2. Adversarial actions such as masking and shielding and their impact on detection and identification of radionuclides 3. Application of nuclide identification during the assessment phase of the Alarm Response Guide. 4. Radioisotopes used in medical, commercial and industrial uses 5. Basic radiological placards, markings and labels 6. Radiological packages and shipping documentation 7. Inspect and preparation and maintenance of Radiation Isotope Identifier Device (RIID) 8. File storage and transfer during operations 9. RIID operator programming files 10. Performance of overt and low visibility operations 11. Digital evidence policies related to spectra files 12. Chain of custody issues related to evidence 13. RND interviews with the public during low visibility and overt operations <p>Training specific to the Secondary Screener environment:</p> <ol style="list-style-type: none"> 1. Naming conventions for instrument files: <ol style="list-style-type: none"> a. Calibration b. Data Collection c. Background 2. Radiation source security and proper handling 3. RIID typing 4. RND mission terminology 5. Required count time for spectra acquisition and ability to adjust based on reachback requirements 6. Collection of ancillary data for reachback 7. Briefing requirements when reporting to Primary Screener 8. Search and Seizure during RND operations 	
<p>NOTES: Not Specified</p>		

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TYPE	TYPE 1	TYPE 2
EXPERIENCE	<p>Knowledge, Skills and Abilities</p> <ol style="list-style-type: none"> 1. Knowledge of radiation as it pertains to the Secondary Screener position 2. Knowledge of Radiation Isotope Identifier Device (RIID) operations 3. Ability to perform secondary screening operations and adjudicate non-threat alarms within reasonable timeframe 4. Communicate effectively with RND personnel and the public 5. Ability to employ resource documents in determination of appropriate half-life of radioisotopes 6. Ability to employ resource documents in determination of appropriate radioisotopes and their use in medical, industrial and commercial applications 7. Ability to collect spectra files, transfer and transmit to reachback <p>Experience:</p> <ol style="list-style-type: none"> 1. Demonstrated experience validated by the AHJ in the following: Completion of the Primary Screener Position Task Book (PTB) or equivalent documentation that validates and verifies (by AHJ) the successful completion of all skills, and demonstrated ability to perform skills in drills, exercises and/or actual operations 2. Qualified as Primary Screener Type 1 by AHJ 	Not Applicable
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Meets all medical and physical requirements established by the AHJ, which includes the physical capability to work long hours in adverse and potentially extreme environmental conditions.	Not Applicable
	NOTES: Not Specified	
CURRENCY	<p>Annual Participate in annual RND operation (real event, exercises, or drills while assigned as a Secondary Screener)</p> <p>Biannual Complete refresher training on mission and position updates and equipment operation</p> <ol style="list-style-type: none"> 1. Quarterly proficiency check: Reachback Demonstration to include acquiring three required spectra, downloading of files, proper naming of files, transmission of data to reachback 	Not Applicable
	NOTES: Not Specified	

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TYPE	TYPE 1	TYPE 2
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Specified	Not Applicable
NOTES: Not Specified		

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TYPE	TYPE 3	TYPE 4
DESCRIPTION	Not Applicable	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Applicable	Not Applicable
	NOTES: Not Specified	
TRAINING	Not Applicable	Not Applicable
	NOTES: Not Specified	
EXPERIENCE	Not Applicable	Not Applicable
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Not Applicable	Not Applicable
	NOTES: Not Specified	
CURRENCY	Not Applicable	Not Applicable
	NOTES: Not Specified	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Applicable	Not Applicable
	NOTES: Not Specified	



ORDERING SPECIFICATIONS OR DESIGNATIONS

- √ Can be ordered as a single resource
- Can be ordered in conjunction with a NIMS typed team ()
- Can be ordered in conjunction with a NIMS typed unit ()

REFERENCES

- 1.
- 2.

NOTE

1. Nationally typed resources represent the minimum criteria for the associated category



PREVENTIVE RADIOLOGICAL NUCLEAR DETECTION PRIMARY SCREENER

TYPE	TYPE 1	TYPE 2
<p>DESCRIPTION</p>	<p>The Preventive Radiological Nuclear Detection (PRND) Primary Screener</p> <ol style="list-style-type: none"> 1. Has the authority and/or responsibility for performing the Primary Screening process of <ol style="list-style-type: none"> a. Detect b. Verify c. Locate d. Measure e. Assess f. Adjudicate or elevate as needed. 2. Operates during steady state or enhanced steady state modes of operations 3. Interfaces with Secondary Screeners as required when an alarm is elevated and requires secondary screening. 	<p>Not Applicable</p>
<p>CATEGORY</p>	<p>CRITERIA</p>	<p>CRITERIA</p>
<p>EDUCATION</p>	<p>Not Specified</p>	<p>Not Applicable</p>
<p>NOTES: Not Specified</p>		
<p>TRAINING</p>	<p>All training indicated for the NIMS Type 1 Primary Screener, including:</p> <ol style="list-style-type: none"> 1. ICS/IS-100: Introduction to Incident Command System (ICS) 2. ICS/IS-200: Basic ICS 3. IS-700: National Incident Management System (NIMS), An Introduction <p>General training with additional focus on discipline and type (position)</p> <ol style="list-style-type: none"> 2. Awareness level Radiological/Nuclear WMD course per NFPA 472 or equivalent, approved by the Authority Having Jurisdiction (AHJ) <p>Awareness-level training of the following:</p> <ol style="list-style-type: none"> 1. Three types of RND operational missions <ol style="list-style-type: none"> a. Steady State b. Enhanced Steady State c. RNSO 	<p>Not Applicable</p>



TYPE	TYPE 1	TYPE 2
	<ol style="list-style-type: none"> 2. Federal, state and local radiological/nuclear resources and assets 3. Radiation terminology and units of measurement 4. Legitimate sources of radiation and identification of material 5. Local policies and CONOPs for Primary Screening 6. State Statutes related to the Primary Screener role 7. Federal law related to Primary Screener <p>Capability based training in the following:</p> <ol style="list-style-type: none"> 1. Global Nuclear Detection Architecture (GNDA) and the RND mission 2. Differences between the prevent and response mission areas 3. WMD terrorism threat posed by Improvised Nuclear Device (IND), Radiological Dispersal Device (RDD), and Radiation Exposure Device (RED) 4. RND NIMS typed positions, equipment typing and team typing 5. Types and characteristics of ionizing radiation as required for primary screening operations 6. Radiation exposure and contamination 7. Principles of radiation detection 8. Inspection and preparation steps for Personal Radiation Detector (PRD) 9. Equipment types used in gross detection 10. Primary Screener Alarm Response Guide 11. Common radioactive material categories to aid in adjudication 12. Proper communication techniques with the public during RND interviews 13. Proper documentation for RND activities and alarms 14. Safety policies for Primary Screening <p>Training Specific to the Primary Screener environment:</p> <ol style="list-style-type: none"> 1. Proper mission vocabulary 2. Scene assessment for safety and operating environment 3. Overt and low visibility operations 4. Triggers that indicate need for secondary screening 5. Transition procedure Primary to Secondary Screening 	
NOTES: Not Specified		



TYPE	TYPE 1	TYPE 2
EXPERIENCE	<p>Knowledge, Skills and Abilities</p> <ol style="list-style-type: none"> 1. Knowledge of the prevent mission framework 2. Knowledge of radiation as it pertains to the Primary Screener position 3. Knowledge of personal radiation detector (PRD) operations 4. Ability to perform primary screening operations 5. Communicate effectively 6. Ensure completion of assigned tasks to meet identified objectives 7. Knowledge of equipment limitations including environmental considerations during operational periods 8. Knowledge of indicators and warnings of terrorist activity 9. Knowledge of legal implications associated with detection equipment use <p>Demonstrated experience validated by the AHJ in the following:</p> <ol style="list-style-type: none"> 1. Completion of the Primary Screener Position Task Book (PTB) or equivalent documentation that validates and verifies (by AHJ) the successful completion of all skills, and demonstrated ability to perform skills in drills, exercises and/or actual operations. 	Not Applicable
NOTES: Not Specified		
PHYSICAL/ MEDICAL FITNESS	Meets all medical and physical requirements established by the AHJ, which includes the physical capability to work long hours in adverse and potentially extreme environmental conditions.	Not Applicable
NOTES: Not Specified		
CURRENCY	<p>Annual</p> <ol style="list-style-type: none"> 1. Participate in annual RND operation (real event, exercises, or drills while assigned as a Primary Screener) <p>Biannual</p> <ol style="list-style-type: none"> 2. Complete refresher training on mission and position updates and equipment operation 	Not Applicable
NOTES: Not Specified		



Domestic Nuclear Detection Office

TYPE	TYPE 1	TYPE 2
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Specified	Not Applicable
NOTES: Not Specified		

U.S. DEPARTMENT OF HOMELAND SECURITY | FEMA PREPAREDNESS GRANTS



Domestic Nuclear Detection Office

TYPE	TYPE 3	TYPE 4
DESCRIPTION	Not Applicable	Not Applicable
CATEGORY	CRITERIA	CRITERIA
EDUCATION	Not Applicable	Not Applicable
	NOTES: Not Specified	
TRAINING	Not Applicable	Not Applicable
	NOTES: Not Specified	
EXPERIENCE	Not Applicable	Not Applicable
	NOTES: Not Specified	
PHYSICAL/ MEDICAL FITNESS	Not Applicable	Not Applicable
	NOTES: Not Specified	
CURRENCY	Not Applicable	Not Applicable
	NOTES: Not Specified	
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	Not Applicable	Not Applicable
	NOTES: Not Specified	

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Homeland
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ORDERING SPECIFICATIONS OR DESIGNATIONS

- √ Can be ordered as a single resource
- Can be ordered in conjunction with a NIMS typed team ()
- Can be ordered in conjunction with a NIMS typed unit ()

REFERENCES

- 1.
- 2.

NOTE

1. Nationally typed resources represent the minimum criteria for the associated category