



NEW ORLEANS POLICE DEPARTMENT OPERATIONS MANUAL

CHAPTER: 46.3.5

TITLE: PERSONAL RADIATION DETECTORS (PRD)

EFFECTIVE: 1/12/2025

REVISED: New Policy

PURPOSE

This policy governs the carrying and use of Personal Radiation Detectors (PRDs) as Primary Screeners in support of Preventative Radiological/Nuclear Detection (PRND).

POLICY STATEMENT

1. PRDs are intended to be used by Primary Screeners at the initial point of radiation detection, which includes the first contact with individuals, packages, vehicles, facilities, or shipments.
2. PRDs will only be worn by officers who have successfully completed the Counterterrorism Operations Support (CTOS) authorized course: "PRND Primary Screener/Personal Radiation Detector."
3. All officers wearing PRDs shall familiarize themselves with the "Securing the Cities New Orleans Region's Operations Plan" found on the NOPD Resources site.
4. Officers who have been issued a PRD shall use the device consistent with **Chapters 1.2.4 Search and Seizure, and 1.2.4.1 Stops** and the "**Securing the Cities New Orleans Region's Operations Plan**". PRDs are intended for use at public events for general detection of radiological/nuclear exposure at public events (such as Mardi Gras, Jazz Festival, Essence Festival, etc.).
5. Officers shall not use the PRD to conduct a search that would otherwise require physical intrusion into private property without proper legal authority to conduct the search, such as a search warrant or exigent circumstances.

DEFINITIONS

Alarm Adjudication - Alarm adjudication is the process of identifying with reasonable certainty, the type or nature of R/N material or device that set off an alarm and assessing the

potential threat that the material might pose with corresponding implications for the need to take further action.

Alarm Resolution - Alarm resolution is the process of taking the necessary action to eliminate any threat by the material that set off the alarm or taking measures to address an indeterminate alarm. In cases where an alarm remains indeterminate or unknown after initial adjudication efforts, resolution may involve further actions to complete the adjudication process - i.e., to identify the material and determine that it poses no threat-or may involve operational response activities.

Primary Screening - Primary screening is the initial point of radiation detection to include the first contact with a conveyance, individual, or shipment. Alarms are categorized as verified or unverified. An alarm is considered verified if it is repeatable. This can be performed by the same instrument or, if two instruments alarm in the same general location to determine if the R/N material is legitimate or a potential threat. Primary screening involves the use of radiation detection equipment to locate a radiation anomaly.

PRND Operations - The process by which specific technical detection resources, personnel, and asset applications are made to execute the operations to detect, identify, report, and interdict radiological and nuclear materials out of regulatory control.

REM - Unit of radiation dosage (such as from X rays) applied to humans. Derived from the phrase Roentgen equivalent man, the REM is now defined as the dosage in rads that will cause the same amount of biological injury as one rad of X rays or gamma rays. Although radiation affects different people in different ways, it is generally believed that humans exposed to about 500 rem of radiation all at once will likely die without medical treatment. For the purpose of Primary Screeners, 1 REM per/hour exposure = 1,000 milli Rem (mRem/hr) or 100,000 micro-REM (μ Rem/hr).

R/N Materials - Radiological and nuclear material that can be used to construct a radiological/nuclear weapon of mass destruction, or material that has already been assembled into a radiological or nuclear weapon.

Secondary Screening - Secondary Screening involves the use of radionuclide (isotope) identification detection equipment and other investigative techniques to identify and investigate the primary alarm or detection event. In accordance with this Chapter, secondary screening and technical reachback operations will usually be performed by regional first responder assets that are appropriately trained and equipped to perform these tasks. There may be instances when federal assets may be called to assist in secondary screening and when in doubt, should be contacted for technical assistance.

Source Check- Placing a PRD near a known source of controlled R/N material to verify if the PRD is operating properly.

Technical Reachback - Technical Reachback is conducted by Secondary Screeners. Reachback consists of technical and scientific support provided by a system of on-call subject matter experts to assist on-scene personnel in the evaluation of detection data and adjudicate verified R/N nuclear alarms. National-Level Reachback is the process by which skilled technical experts in R/N detection concepts, spectroscopy, technologies, and nuclear weapons, analyze site-specific data and confirm radioisotope identification in the event of a R/N threat or incident to enable responders to develop and implement response options.

Totality of Circumstances - During operations to discover or locate R/N materials that are out of regulatory control and may or may not be associated with a terrorist or criminal threat, personnel conducting these operations should use a "totality of circumstances" approach to assessing the threat. A totality of the circumstances approach recognizes that there is no one single deciding factor for a decision, and that one must consider all the facts and the context in order to conclude, from the whole of available information, whether there is reason to believe that the detected R/N material may be suspicious and potentially associated with a terrorist or criminal threat. Approaches to determining whether or not such a threat exists must balance the application of technical analysis with reasonable suspicion of the conditions surrounding the related circumstances.

GENERAL

6. Radiation detectors are designed to detect, search, and locate gamma-emitting radioactive sources. It is designed for use in any area where radiation dose and dose rate are required to be measured. This device detects and locates radiation sources in both indoor and outdoor environments.
7. Alarms may be triggered by many legitimate sources that are not life threatening such as:
 - a) legitimate radioactive materials or sources being transported legally in approved and properly prepared packaging.
 - b) patients that have undergone recent medical treatments, including certain types of radiation therapy or nuclear medicine.
 - c) items in commerce that contain naturally occurring radioactive materials (e.g., radium in pipe scale, granite rock, and certain fertilizers).
 - d) survey equipment utilized at construction sites.
 - e) organizations and individuals that are licensed by the state and/or federal government to possess legitimate radioactive sources.
8. A PRD communicates an alarm to the operator using lights, audio, and/or numeric indicators. Following the detection, the operator must determine the general location of the R/N material. Based on the totality of circumstances, if the R/N alarm is associated with a conveyance, package, or individual, the operator will conduct a passive visual inspection of the alarm location and interview any personnel associated with the alarm.
9. Officers should be mindful that radiation detection can be part of reasonable suspicion and probable cause, but not necessarily reasonable suspicion or probable cause on its own.

10. All personnel carrying a PRD shall perform a Daily Pre-Operations PRD Check as indicated below:
 - a) At the beginning of their tours of duty, Department members in possession of a radiation detector will ensure the device is working correctly, sufficiently charged, and affixed properly. Furthermore, Department members will note the accumulated background dose on the detector on their Daily Activity Sheet. (NOTE: Department members will ensure the detectors are zeroed at three-month intervals to prevent false alarms.)
 - b) Visually inspect PRD for physical damage.
 - c) Turn on PRD in an environment free of any known radiation source and observe start-up sequence or self-tests for the audible and visual alarms. Confirm that these tests function properly. (If any errors appear on the display screen, write them down and contact STC NOLA Program Office at 504-874-0450 and STC@nola.gov.)
 - d) Check the battery level & calibration due date.
 - e) Perform *source check* to verify PRD is operating properly.
11. If any repairs, malfunctions, or problems are encountered with the PRD, personnel are directed to contact the **Securing the Cities Program Management Office** (STC PMO), located in the Real Time Crime Center for resolution at STC@nola.gov.
12. When the PRO requires batteries (as indicated on the PRD), personnel should report to the STC PMO for battery replacement and calibration check.
13. If the PRD is lost, misplaced, or stolen, contact the STC PMO for re-issue of a PRD. All lost, misplaced or stolen PRD must be documented per Chapter 17.3 – Department Owned and Personal Property in an EPR. A copy of the approved EPR shall be forwarded to the STC PMO.
14. Upon termination of employment, or an extended leave of absence, the PRO should be returned to the STC PMO.

DEPLOYMENT CONSIDERATIONS

15. Department members will affix the radiation detectors at least six inches away from any radio-emitting source (e.g., cell phones and radios) to avoid any false-positive readings.
16. PRDs are deployed under "Steady State" (Day-to-day), "Enhanced Steady State" (Stepped up or Focused/Special Events or festivals), or during FBI executed "Crisis Operations or R/N Search" Operations. At no time should the deployment of a PRO conflict with the execution of normal law enforcement duties.
17. If a radiation alarm condition is encountered during your regular operations officers should:
 - a) Determine the general location of R/N material. Based on a totality of circumstances approach, if the R/N alarm is associated with a conveyance, package, or individual, the operator will conduct a passive visual inspection of the alarm location and interview any personnel associated with the alarm. If

possible, establish a 2 mRem/hr (2000 µR/hr) and a blast/fragmentation perimeter {300 feet) if suspected to be associated with a potential explosive device.

- b) Verify, locate, and investigate the source:
- 1) Immediately note the dose rate alert level and type of radiation (gamma or neutron) displayed on the detector.
 - 2) Attempt to repeat the alarm and localize the source. Move away from the source until your PRO readings decrease to below 2 mRem/hr on your display. An alarm is considered "**verified**" if you can repeat the readings. This can be performed by using the same instrument by moving to and from the alarm location and observing the change in dose, or by using two instruments that alarm in the same general location. If an alarm is not repeatable, it is considered "**indeterminate**", and no further action is required.
 - 3) If the alarm can be verified, determine the general direction of the source of the alarm
 - 4) Note the details of the alarm. The equipment type, indications, dose rate or alarm level if available, and recording of distance to and from source.
 - 5) Record the radiation measurement associated with the alarm and the estimated distance from the unknown source causing the alarm.
- c) Follow all Departmental Policies and Procedures during the response
- 1) If radiation level exceeds 5 mRem/hr, call Dispatch for additional support and stop primary screening activities.
- d) Once the source is localized, the officer may, based on reasonable suspicion and the totality of the circumstances, detain the individual(s) for further investigation. Department members will base investigatory stops, traffic stops, arrests, searches of personal or real property, and seizures on reasonable articulable suspicion or probable cause as required by the Fourth Amendment of the United States Constitution, the Louisiana Constitution, Municipal Code of the City of New Orleans, applicable statues, or as otherwise permitted under current law and Departmental policy. Department members must be able to articulate reasonable facts, circumstances, and conclusions that support probable cause or reasonable articulable suspicion for an investigatory stop, a traffic stop, arrest, search of personal or real property, and seizure. The activation of an alarm, by itself, is not cause for officers to detain and search individuals believed to be the cause of the alarm; however, it can assist the officer in gaining crucial information to develop the probable cause or reasonable suspicion to detain and search for the cause of the activation.

Because an alert from a radiation detection device alone is not indicative of criminal activity, officers will not take enforcement action based solely upon that alert.

- e) If the perceived source is a vehicle or object, isolate the individual(s) from the vehicle or object(s) to determine the location of the detected source of radiation
- f) Investigate to determine if source is non-threat. Utilizing standard investigative techniques, question individual(s) as to cause of elevated radiation detection.
- g) Officers will use the totality of the circumstances available to them, including behaviors, interview information, and the nature or location of the possible radiological concern to support an adjudication for the alarm or determine if further investigation is required. These circumstances are discussed below.
- h) Readings above 5 mRem/hr may be encountered during the investigation, especially close to the person or object producing the radiation; however, if consistently elevated readings more than a foot away from objects or walls are encountered that cannot be immediately explained (above 2 mRem/hr), personnel should take the following protective measures:
 - 1) If needed, secure the area around the exclusionary boundary
- i) If it can be safely done, note the boundary around the suspected radiation source at the 2 mRem/hr reading. If primary screening cannot resolve the alarm, this will be established as the exclusion zone for the general public.
 - 1) If needed, secure the area around the exclusionary boundary
- j) Notify Communications and continue to investigate until / unless one of the following occur:
 - 1) Source is located, and the alarm can be adjudicated
 - 2) The dose rate exceeds the capabilities of the detector (usually indicated by an "overload" or "OL" reading)
 - 3) The dose rate exceeds 100 mRem/hr

Special Note: *If immediate threat source(s) or conditions are encountered during any part of the alarm resolution process, secure the individual, isolate any belonging(s) or vehicle(s), and contact Communications for Secondary Screening.*

- k) Primary Screening Checklist (Totality of Circumstances Considerations):
 - 1) Location of the alarm (mass public gathering, empty parking lot, cargo container)
 - 2) For all verified alarms, separate all persons from their vehicles and/or objects they are carrying or transporting, for further inspection.
 - 3) Assess behavior of person(s) related to the alarm (medial/acting suspicious).
 - 4) Visually inspect/interview all objects/personnel associated with the alarm.
 - 5) Unattended versus suspicious (wires, lights, etc.) package association
 - 6) Identify any manifest/shipping discrepancies.

- l) Traffic stops based upon an alert from these devices may be made only when the officer has reasonable suspicion or probable cause to believe that the individual has committed, is committing, or is about to commit, a crime. An alert alone, is not sufficient basis to initiate a traffic stop, investigative detention, arrest, or any searches and/or seizures of personal or real property. However, an officer may use the PRD as a factor when establishing a legitimate, independent basis for stopping a vehicle or taking enforcement action.
 - m) Follow NOPD SOPs for suspicious packages if any boxes, containers, packages are in the vicinity of the object causing the alarm. (See: **Chapter 46.3 – Response to Bomb Calls.**)
 - n) Do not disturb or approach the boxes, containers, packages to obtain readings.
 - 1) Call Communications and wait for assistance.
 - o) First and foremost, should the R/N material be associated with a potential device, **DO NOT TOUCH OR DISTURB THE POTENTIAL DEVICE!**
 - p) Be prepared to describe the following to the FBI field office personnel:
 - 1) The object itself (approximate dimensions and type of container it is in).
 - 2) Obvious features/emissions (lights, sounds, smells, antennas, wires, etc.).
 - 3) External markings (holes, writing, stickers, clock, etc.).
 - 4) Has anyone gotten sick nearby it?
 - 5) The environment the object is located in.
 - 6) How long it has been there, if known.
 - 7) Other hazards nearby (chemical, gas station, utilities, etc.)
 - 8) Has anyone changed the surroundings? (If, no, then don't do any of the following! If yes, then note only and do not continue!)
 - 9) Lights/power on/off?
 - 10) Was the object moved? (By whom? How? When?)
 - 11) Has anyone had a radio nearby the object? (What? When? Type/Wattage? How close? Transmitting or receiving?)
 - 12) Did anyone touch the object?
 - 13) If possible, establish a perimeter per **Chapter 46.3** (300 feet), or consider blast/fragmentation distances if associated with a suspicious package.
 - 14) Consider public evacuation of the immediate area if circumstances indicate.
18. Request Secondary Screening for the purpose of isotope identification if:
- a) If the 2 mRem/hr boundary is greater than ten feet from the source, or the PRD is overloaded, ten feet or more away from the source
 - b) Primary screening procedures do not reveal the source of the confirmed alarm
 - c) The radiation appears to be emanating from an enclosed area, such as a

- suspicious package, vehicle trunk or storage building
- d) Radiation levels do not appear to be consistent with manifest shipping documentation or interview comments
 - e) Consistent, unexplainable neutrons are detected
 - f) Other inconsistencies or uncertainties are encountered
19. Officers are reminded that unless the subject is under arrest or the suspect item has been legally seized under a search warrant, the reasonable time requirements for investigation under the guidelines of **Terry v. Ohio** and companion cases applies for requested response for secondary screening. During normal day-to-day operations, a secondary screener from NOPD or NOFD would be activated in the same manner as for a Hazmat incident with the corresponding response time being similar. For significant events, usually under a Departmental Operations Order, the secondary screeners and isotope identifiers would be pre-positioned, which significantly reduces response time. If Technical Reachback is required the Department of Energy (DOE) has set a goal of under ten minutes after receiving the data, which usually requires the secondary screener to take a 5-minute reading of potential source(s) with the apparatus to acquire the data to send to DOE.
20. If any assistance is needed during the Primary Screening process, officers should contact Communications (OPCD) who will in turn contact Secondary Screeners or other assistance based on the situation.
21. Remain available to assist Secondary Screener as necessary.

OFF-DUTY CONSIDERATIONS

22. Personnel are authorized to carry their issued PPRDs while engaged in approved police secondary employment.
23. Personnel shall ensure that all STC-owned PRDs are secured while they are off duty in the same manner as an officer's firearm or radio would be secured, where the PRD is not accessible by others.

DOCUMENTATION

24. If any police action is taken in response to any alert OR if the officer requests a secondary screener to identify the source of radiation, an electronic police report (EPR) shall be generated. An approved copy of such shall be emailed to stc@nola.gov with 72 hours of approval. The report shall contain the screening results displayed on the PRD and the adjudication results per current training standards.

SUPERVISOR ESPONSIBILITIES

25. Supervisors shall ensure that trained Primary Screeners use their PRDs during normal steady state operations. Designated Primary Screeners shall be noted on the unit Lineup.
26. Supervisors shall ensure that each Primary Screener conducts the Daily Pre-Operations PRD Check. Checks shall be noted on the Primary Screener's Activity Sheet and on the Supervisor's Activity Sheet.