

## Cobb County Police Department

### Policy 4.05a

## PREVENTATIVE RADIOLOGICAL AND NUCLEAR DETECTION

<b>Effective Date:</b> November 27, 2022	<b>Issued By:</b> Chief E.S. VanHoozer
<b>Rescinds:</b>	<b>Page 1 of 7</b>
The words “he, his, him,” which may appear in this policy, are used generically for clarity and ease of reading. These terms are not meant to imply gender and relate to all employees of the Department.	

The purpose of this policy is to provide guidelines for the issuance, training, maintenance and use of Radiation Detection equipment in support of a Preventative Radiological and Nuclear Detection program. This policy applies to all sworn law enforcement personnel.

### I. POLICY

It is the policy of the Cobb County Police Department to utilize radiation detection equipment to respond to radiological incidents and to detect, disrupt, and deter nefarious use of radiological material.

### II. DEFINITIONS

- A. **PRND** – Preventative Radiological/Nuclear Detection Mission
- B. **STC or STC ATL** – Securing the Cities Program or Securing the Cities Atlanta
- C. **WMD** – Weapon of Mass Destruction
- D. **Radiation** – the process in which energy is emitted in the form of waves or particles. Your senses cannot detect Radiation without the use of specialized equipment.
  - **Ionizing Radiation** – a form of energy that acts by removing electrons from atoms and molecules of materials that include air, water, and living tissue. Ionizing radiation can travel unseen and pass through these materials.
  - **Alpha** – ionizing radiation consisting of alpha particles, emitted by some substances undergoing radioactive decay. Alpha particles only travel about 1 inch in air. Alpha particles can be stopped by a piece of paper.
  - **Beta** – ionizing radiation consisting of beta particles, emitted by radioactive substances some substances undergoing radioactive decay. Beta particles can travel several yards in air and can penetrate one-half inch through skin. Beta particles can be stopped by clothing.

- **Gamma** – a penetrating form of electromagnetic energy in the form of waves or photons emitted from the nucleus. They are able to travel tens of yards or more in air and can easily penetrate the human body. Barriers of lead, concrete, or water are required to shield gamma rays.
  - **Neutron** – Neutrons are high-speed nuclear particles that have an exceptional ability to penetrate other materials. Neutron radiation can travel hundreds of yards. Barriers of thick concrete or water are required to shield neutron radiation.
- E. **Background Radiation** – is ionizing radiation from natural sources, such as terrestrial radiation due to radionuclides in the soil or cosmic radiation originating in outer space.
- F. **Isotope** – is a nuclide of an element having the same number of protons but a different number of neutrons.
- G. **PRD** – Personal Radiation Detector (aka Rad Pager or Rad Detector)
- H. **SPRD** – Spectroscopic Personal Radiation Detector – a PRD that identifies a specific category or type of radiation.
- I. **RIID** – Radioisotope Identification Device. Specialized equipment used during Secondary Screening to locate and identify specific radionuclide(s).
- J. **Primary Screening** – The initial point of radiation detection causing an alarm on primary screening equipment. Utilizing basic tactics, techniques, and procedures, operators will detect, verify, and locate the source of the radiological concern. Primary Screeners will categorize alarms as verified or unverified.
- K. **Secondary Screening** - Screening conducted in an investigative manner utilizing isotope identification equipment if a Primary Alarm cannot be adjudicated or is determined to be real. This screening may include overt investigative methods, covert investigative methods, or a combination of both to gather more information regarding the nature of the radiological alarm.
- L. **Steady-State Operations** – routine day-to-day operations where PRND monitoring occurs during routine law enforcement activities. Primary screening radiation detection equipment is deployed with personnel as an ancillary function of their normal daily duties. Steady-State Operations increases the probability of interdiction of radiological or nuclear material in the absence of any intelligence indicating an increased threat.
- M. **Enhanced Steady-State Operations** – an increase in PRND monitoring in response to a specific threat, a heightened threat environment, or in support of a planned security related special event. During Enhanced Steady-State Operations, assets with primary radiation detection equipment may be redirected from their normal day-to-day operations and normal geographic area to an area for a specific PRND mission.

- N. **Alarm Adjudication** – is the determination of whether the presence of radioactive material, and subsequent alarm, is legitimate or illegal. Adjudication can be completed by trained PRD operators, supervisors, or hazmat personnel.
- O. **MOU** - Memorandum of Understanding – written document describing an agreement between federal, state, and local partners.

## **II. EQUIPMENT ISSUANCE AND MAINTENANCE**

PRDs will be assigned in a manner to ensure coverage across all shifts at each precinct. PRDs will also be assigned to specialized units that operate throughout the county. Personnel who work on-duty or secondary employment assignments at special events (i.e. Braves, the Battery, Cobb Performing Arts Center, etc.) should be given priority in issuance of PRDs.

Personnel will be trained in the use and operation of a screening tool prior to issuance and deployment of the equipment. Once personnel have been trained, it will be their responsibility to:

- A. Deploy issued equipment during their assigned shift, to/from court appearances, and while working any secondary employment.
  - 1. PRDs shall be worn on the person unless being utilized to search.
  - 2. The PRD's dosimeter shall be cleared at the beginning of each shift.
- B. Maintain and be accountable for the equipment in accordance to Policy 3.06 "Issued Equipment."
  - 1. Any broken or malfunctioning equipment, other than that which needs batteries, shall be returned to the Bomb Squad Commander or their designee for repair/replacement through STC ATL.
  - 2. Batteries will be available at each work location for replacement as needed.
- C. Maintain current alarm threshold and other settings; Personnel should not alter any internal or pre-programmed settings other than light controls and audible alerts

## **III. PRIMARY SCREENING**

When PRDs are utilized during Steady-State Operations for the PRND mission, verification and adjudication of any alarms is required. Secondary Screening assets shall be requested when required.

- A. Radiation source(s) is/are detected, causing an alarm on the primary screening detection equipment
- B. Utilizing basic tactics, techniques, and procedures, operators will detect, verify, and

locate the source of the radiological concern using the following steps:

1. Verify the Alarm.
  2. If the alarm can be verified, determine the general location of the source of the alarm.
  3. Observe and record alarm details (equipment type, indications, dose rate, distance from source).
  4. If radiation measurements exceed 2 mR/h, the officer shall discontinue primary screening activities, notify their immediate supervisor, and the Bomb Squad Commander should be notified in accordance with Policy 4.01 "Critical Incident Management."
  5. Adjudicate the alarm if possible.
    - a. Innocent Adjudication:
      - Naturally occurring
      - Lawful/Innocent
      - False alarm
    - b. Real Alarm/Illegal Use Adjudication
  6. If the alarm cannot be adjudicated or is determined to be a real alarm, the Bomb Squad Commander shall be notified for Secondary Screening.
- C.** Personnel should maintain situational awareness if searching with a PRD. If a PRD is being utilized to locate a source, a second "cover officer" should be contacted and requested to assist.
- D.** Personnel will use the totality of the information available to them, including behaviors, interview information, and the nature/location of the possible radiological concern, to support a preliminary assessment of the alarm and determine if further investigation is required.
- E.** During primary screening, personnel should observe and note markings on containers, labels, shipping papers and other available information about the radioactive source to help adjudicate the radiation alarm.
- F.** Personnel should be aware of the potential for simultaneous incidents/attacks, multiple radiation sources, booby-traps and other hidden hazards when operating on an incident.

#### **IV. SECONDARY SCREENING**

Secondary Screening requires the use of specialized radiation detection instruments to

gather more information regarding the nature of the radiological alarm. The Cobb County Police Department Bomb Squad is responsible for performing Secondary Screening when Primary Screeners cannot adjudicate an alarm, or it is determined to be real. The Cobb County Fire Department Hazardous Materials Team may perform Secondary Screening for Cobb County Fire Department Primary Screeners.

- A.** A critical incident response will be initiated in accordance with Policy 4.01 “Critical Incident Management.”
- B.** In any situation that requires Secondary Screening within Cobb County, the Cobb County Police Department Bomb Squad Commander shall be notified.
- C.** The Bomb Squad Commander shall notify the FBI WMD Coordinator and the FBI Special Agent Bomb Technician (SABT) immediately and they shall be kept apprised of the situation.
- D.** Secondary Screeners should not exceed 2 mR/h to obtain samples.
- E.** Alarm Adjudication – Alarms should be resolved as a threat or non-threat.
  - 1. Non-Threat:
    - a. Naturally Occurring Radioactive Material (NORM).
    - b. Exempt Consumer Products containing Radioactive Material.
    - c. Medical treatments, such as injections of radiopharmaceuticals.
    - d. Transport or use of radioactive material, including improperly shipped or managed material without intent to harm. Note that safety and regulatory follow-on actions may be required for radioactive material that is improperly shipped or used.
  - 2. Threat:
    - a. Discovery or possibility of explosives or improvised explosive device in conjunction with the radiation alarm.
    - b. An indication of threat material or a terrorism nexus.
    - c. Any unexplained detection/indication of neutrons.
    - d. Special Nuclear Material (SNM) is identified.

Threat determinations are generally made in coordination with the FBI through a unified command structure.
- F.** The Bomb Squad Commander should initiate National Technical Reach-back and

notify the FBI WMD Coordinator and FBI SABT immediately if:

1. Radiological/Nuclear materials are present and are outside their intended environment or regulatory controls;
2. Neutron radiation is detected and is not part of a legitimate conveyance, individual, or shipment or verified false alarm;
3. Special Nuclear Material (SNM) is detected, suspected, or cannot be ruled out and is not part of a legitimate conveyance, individual, or shipment;
4. A radiation source is suspicious, cannot be identified or authenticated, and is not part of a legitimate conveyance, individual, or shipment; or,
5. A criminal or terrorist nexus is present.

## **V. ENHANCED STEADY-STATE OPERATIONS**

During Enhanced Steady-State operations, primary radiological detection screening assets may be redirected from their normal day-to-day operations and normal geographic area of deployment for a specific PRND mission.

Enhanced Steady-State operations within the STC Atlanta Region will include the deployment of additional primary radiological detection screening assets in response to the following:

- Special Events – Events that elevate a target's value based upon symbolism, psychological impact, and/or mass gatherings.
- Intelligence-Driven Events – Intelligence received as a potential threat to the region, which is not necessarily deemed to be actionable or highly credible.

The Cobb County Police Department will support Enhanced Steady-State Operations by redeploying primary screening assets to focus on detection of illicit sources along major traffic routes and high value target areas.

Primary screening assets may be requested to support partnering STC agency operations upon request and through existing MOU.

## **VI. PRND MISSION AND ELECTRONIC EVIDENCE**

All personnel shall remain cognizant that any time radiation detection equipment is deployed, it may produce electronic evidence. Personnel must understand that the presentation of electronic evidence alone is not likely to lead to a successful criminal conviction; however, the lack of such evidence can adversely affect the prosecution. To ensure that any collected evidence is admissible in a court of law, all conventional and electronic items listed below should be maintained as evidence:

- PRD/man-portable detector data log files
- Radioisotope Identification Devices (RIID) Spectra files
- Mobile systems data log files
- Digital photographs
- Electronic reach-back forms
- E-mails used for reach-back or other purposes

All personnel shall adhere to all policies (Search and Seizure 5.22, Search Warrants 5.23, Property-Evidence Collection and Packaging 3.11, and Property-Evidence Documentation and Storage 3.12) and procedures for compliance with 4th Amendment concerns regarding the collection and storage of evidence. Evidence may need to be stored for extended time periods. In addition, considerations should be given to maintain software if it may be necessary to access electronic data after a piece of equipment has become decommissioned. For notable cases, consideration may be given to sequestration of instruments or original data storage cards.

## **VII. TACTICAL CONSIDERATIONS**

The primary assumption is that once a criminal element believes it has been discovered, it will violently defend its weapon or deploy it rather than surrender it. For this reason, the request for tactical team assets should be considered very early in the adjudication process.