# Human-Portable Radiation Detector

## Description
This instrument comprises several radiation detection components placed inside a backpack or similar enclosure, along with an optional external control device.

## Resource Category
Prevention

## Resource Kind
Equipment

## Overall Function
The Human-Portable Radiation Detector detects 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 Personal Radiation Detector (PRD) or Radio-Isotope Identification Device (RIID).

## Composition and Ordering Specifications
1. The Agency Having Jurisdiction (AHJ) and requestor should discuss the following prior to deployment:
   a. Logistics support, such as working conditions, length of deployment, transportation, and personnel
   b. Type of incident and event
   c. Spare batteries and battery recharging capabilities
   d. Additional features, such as dose rate capable, low profile mode, ruggedized, and network capable
   e. Global Positioning System
2. The requestor can request this resource with or without the personnel component of a National Incident Management System (NIMS) Type 2 Preventive Radiological Nuclear Detection (PRND) Screener
3. If the requestor orders this resource without personnel, the AHJ should have a NIMS Type 2 PRND Screener or provide face-to-face training specific to the mission, without lag time between training and mission deployment

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

<table>
<thead>
<tr>
<th>Component</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Type 4</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Detection Equipment per Resource</td>
<td>Same as Type 2</td>
<td>Same as Type 3, PLUS: Neutron</td>
<td>Same as Type 4</td>
<td>Gamma</td>
<td>Not Specified</td>
</tr>
<tr>
<td>Isotope Identification Equipment per Resource</td>
<td>Same as Type 3</td>
<td>Same as Type 4</td>
<td>Isotopes</td>
<td>No capability</td>
<td>Not Specified</td>
</tr>
</tbody>
</table>
NOTES
Nationally typed resources represent the minimum criteria for the associated component and capability.

REFERENCES
1. FEMA, NIMS 509: Preventive Radiological Nuclear Detection Screener
2. FEMA, National Incident Management System (NIMS), October 2017