Discovering an Incident: How do you know a radiation incident has occurred?

Is it a radiological or nuclear incident?

How do you know a radiation incident has occurred?

Obvious in Real Time
- Information from local, State, Federal authorities
- News report
- Routine, real time radiation monitoring of:
  - Industrial radiation sources
  - Planned transport of radiation sources
  - Medical facility radiation sources
- Personal observation

Examples
- Nuclear explosion
- Transportation incident
- Medical facility incident
- Nuclear power plant / reactor incident or sabotage
- Industrial radiation source incident

Not Obvious in Real Time
- Evaluating an explosive incident, HAZMAT team tests for and finds radiation.
- Monitoring of water, soil, food, air reveals unexpected radiation.
- Recognizing over time a cluster of victims with radiation-linked clinical signs and symptoms
- Locating a radiation source outside of expected places, e.g., subway, sports field

Examples
- Radiological Dispersal Device
  - Explosive incident subsequently found to have radiation
  - Non-explosive incident: radiation dispersion into food, water, soil, air
  - Hidden radiological source: Radiological Exposure Device
- Malicious or unintentional industrial, nuclear reactor, medical facility, or transportation incident discovered after the fact

More Details...