MIRION TECHNOLOGIES

Emergency Response Radiation Preparedness Worksheet

Audit of Radiation Safety Needs

How much protection does your district require? Check each known source or threat relevant to your circumstances.

Potential sources

INTERNAL: Facilities within your response area

- ☐ Nuclear pharmacies (e.g. Cardinal Health)
- ☐ Radiopharmaceutical manufacturers (e.g. Lantheus)
- ☐ Nuclear medicine clinics
- ☐ Radiation oncology clinics
- ☐ Blood bank irradiators
- ☐ Research irradiators
  - ☐ College/university
  - ☐ Private laboratories
- ☐ Industrial sources
  - ☐ Industrial radiography
  - ☐ Industrial process control gauges
  - ☐ Soil density (“nuclear”) gauges
  - ☐ Sterilization facilities (food, surgical instruments, etc.)
- ☐ Nuclear reactors
  - ☐ Power
  - ☐ Military
  - ☐ Research/isotope production

EXTERNAL: Facilities close to your response area

- ☐ Nearby nuclear reactors
- ☐ Nearby large radiological facilities (reference Internal list above)
- ☐ Proximity to a potential target
- ☐ Access to transportation hubs and routes
  - ☐ Port
  - ☐ Major air hub
  - ☐ Number of interstate highways

Potential for a terrorist attack

- ☐ Is your city or location widely known in the US and overseas?
- ☐ Do you have high-profile events (e.g. major sporting or cultural events)?
  - ☐ If so, how frequently?
- ☐ Has your city been a terrorism target in the past?
- ☐ Are you close to any major radiological and/or nuclear facilities?
- ☐ Are you home to any major military facilities?
- ☐ Are there any other major governmental facilities in the area?

SCORING

Score one point for each source or threat noted above.

- **< 3 POINTS** — low risk
- **3-10 POINTS** — moderate risk; recommend minor interdiction and response capability, including training and CONOPS for hazardous materials, Emergency Services, or other designated response units; recommend a small number of dosimeters (e.g. Instadose® dosimeter or MBD-2™ dosimeter) and a small number of AccuRad PRDs
- **> 10 POINTS** — highest risk; recommend highest level of instrumentation, training, and other aspects of interdiction/response capabilities

Building Your Radiation Safety Program

Use the checklists below to set up — or step up — your radiation safety program.

For a General Radiation Safety Program

Equip your team for baseline radiation safety.

- ☐ Radiation Safety Officer (properly trained and approved by regulators)
- ☐ Radioactive materials license (if you intend to have sources for training, or to sometimes take custody of an abandoned or "found" source)
- ☐ Designated source storage area
- ☐ Radiation-generating device registration (if you intend to have x-ray machines — including backscatter units)
- ☐ Radiation worker training (and refresher training) program
- ☐ Appropriate instruments for the type(s) of radiation training and threats
- ☐ Radiation dosimetry program (for personnel as well as fixed badges for area monitoring)
- ☐ SOPs for instruments, monitoring procedures, dosimetry, package receipt, etc.

For an Interdiction Program

Stop an attack before it happens.

- ☐ Fixed instruments at major chokepoints (e.g. toll booths, bridges, tunnels, marinas, storage areas, etc.)
- ☐ Mobile instruments (on cops, vehicles, boats, helicopters, etc.)
- ☐ Central monitoring location (e.g. Incident Command Post)
- ☐ Tier III personnel (cops with less training and meters with minimal training required, such as the AccuRad PRD)
- ☐ Tier II personnel (better-trained cops with RIIDs such as theSPIR-Ace™ device, SPIR-Pack™ system, and SpirVIEW Mobile™ software)
- ☐ Reachback capability
- ☐ Training and CONOPS for above items

For a Response Program

Be ready for radiological threats of any size.

All of the above, plus:

- ☐ High-range instruments for responder health and safety
- ☐ Plans, policies, procedures — preferably multi-agency
- ☐ Coordination plans with state and/or federal government
- ☐ Community Reception Center plan and equipment (e.g. portal monitors, handheld meters, decon facilities, etc.)
- ☐ Recovery and reoccupancy plans and area release criteria
- ☐ Public information portal
- ☐ Coordination with medical facilities and caregivers

The experts at Mirion Technologies are here to help you take your radiation safety program to the next level. Visit **accurad.mirion.com** and reach out using the contact form to discuss your unique scenario.