

# Fire Department Emergency Response to Incidents involving Radioactive Materials



WISCONSIN DEPARTMENT  
of HEALTH SERVICES

P-01617 (12/2025)



**Life-threatening emergencies always have priority over concerns involving radioactive contamination.**

- 1. Restrict access to area.** Keep all non-emergency personnel and vehicles at least 1000 feet from scene.
- 2. Approach the scene with survey meters on and personnel dosimetry in place.** Remain upwind if possible. Do not enter areas with  $> 100$  mR/hr dose rate unless necessary to treat injured personnel or prevent the spread of radioactive contamination.
- 3. Extinguish or control fires.** Use DOT's Emergency Response Guidebook or other appropriate guidance.
- 4. Measure and minimize personnel exposure** by using appropriate time, distance, and shielding methods.
- 5. Do not handle or move radioactive materials.** Cover or contain materials to prevent contamination from spreading. Do not decontaminate anything at the scene unless directed by radiologically trained personnel.
- 6. Set up controlled area for emergency personnel** at least 100 feet from the scene. Use physical barriers to show the area, when available. Exposure levels in uncontrolled areas must be below 2 mR/hr.

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**7. Control access to and from the controlled area** if there is possible radioactive contamination. A control point should be established to control access, which should be monitored at all times.

- All personnel should enter or leave the scene through this point. All material and equipment that enters the area should remain within the area. If it must be removed, it must either be decontaminated by radiologically trained personnel or surveyed as free of contamination.
- Personnel should be surveyed for radioactive contamination before they leave the area. If survey equipment is not available, personnel should leave their outer clothing within the controlled area, change into fresh clothing when they pass through the control point, and should be surveyed as soon as possible. Contamination is considered to be readings of 100 counts per minute (cpm) above background when measured with a Geiger-Mueller type instrument using a “pancake” detector.
- Names, addresses, and radiological survey results should be obtained for all personnel that have entered the area.

**8. At any point, you may call the Department with radiological questions.** The 24-hour hotline will forward to a pager that should respond within 30 minutes.