

Attachment F

Radiological Hazards

Radiological materials have many uses and serve a very important purpose in our country. Some of their most common uses include:

- Use by doctors to detect and treat serious diseases.
- Use by educational institutions and companies for research.
- Use by the military to power large ships and submarines.
- Use by companies in the manufacture of products.
- Use as a critical base material to help produce the commercial electrical power that is generated by a nuclear power plant.
- Use as one of the critical components in nuclear weapons, which are relied upon to help deter the threat of war.

Under extreme circumstances an accident or intentional explosion involving radiological materials can cause very serious problems. Consequences may include death, severe health risks to the public, damage to the environment, and extraordinary loss of, or damage to, property.

This attachment focuses on the unique and regulatory planning requirements associated with the two radiological hazard threats that pose the most significant risks to a community:

- An accident at a nuclear power plant, and
- Nuclear conflict with one or more nations that may be hostile to the United States.

The description of the hazard and both radiological and direct weapons (blast, fire) effects in Tab 2 to this attachment apply also to the threat of nuclear terrorism. That is, the same effects and consequences would be associated with the "intentional" detonation of a nuclear device or weapon by a terrorist group seeking to maximize the blast, fire, and radiological effects.

Planning for response to transportation accidents that involve the accidental spread or release of radiological waste materials is addressed in the Attachment C, Hazardous Materials. See also FEMA-REP-5, *Guidance for Developing State, Tribal, and Local Response Planning and Preparedness for Transportation Accidents*

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