
5. Maintenance

- a. Be prepared to activate Shutdown Procedures if warranted by the situation.
- b. Assist in relocating residents to safe refuge if possible.
- c. Remain calm to not upset the residents.
- d. Assist Incident Commander as needed.
- e. Be prepared to activate Evacuation Procedures.

6. Other Staff Members

- a. Secure work area by securing records, closing drawers, cabinets, shutting down electronic appliances, etc. and reporting to the nearest Area of Refuge away from all windows and doors.
- b. Assist in relocating residents to safe refuge if possible.
- c. Remain calm to not upset the residents.
- d. Be prepared to activate Evacuation Procedures.

Nuclear Blasts

A nuclear blast is an explosion with intense light and heat, a damaging pressure wave, and widespread radioactive material that can contaminate the air, water, and ground surfaces for miles around. A nuclear device can range from a weapon carried by an intercontinental missile launched by a hostile nation or terrorist organization, to a small portable nuclear device transported by an individual. All nuclear devices cause deadly effects when exploded, including blinding light, intense heat (thermal radiation), initial nuclear radiation, blast, fires started by the heat pulse, and secondary fires caused by the destruction.

Hazards of Nuclear Devices

The extent, nature, and arrival time of these hazards are difficult to predict. The geographical dispersion of hazard effects will be defined by the following:

- **Size of the device** – A more powerful bomb will produce more distant effects
- **Height above the ground the device was detonated** – This will determine the extent of blast effects
- **Nature of the surface beneath the explosion** – Some materials are more likely to become radioactive and airborne than others. Flat areas are more susceptible to blast effects
- **Existing meteorological conditions** – Wind speed and direction will affect arrival time of fallout; precipitation may wash fallout from the atmosphere

Radioactive Fallout

Even if individuals are not close enough to the nuclear blast to be affected by the direct impacts, they may be affected by radioactive fallout. Any nuclear blast results in some fallout. Blasts that occur near the earth's surface create much greater amounts of fallout than blasts that occur at higher altitudes. This is because the tremendous heat produced from a nuclear blast causes an updraft of air that forms the familiar mushroom cloud. When a blast occurs near the earth's surface, millions of vaporized dirt particles also are drawn into the cloud. As the heat diminishes, radioactive materials that have vaporized condense on the particles and fall back to Earth. The phenomenon is called radioactive fallout. This fallout material decays over a long period of time, and is the main source of residual nuclear radiation.

Fallout from a nuclear explosion may be carried by wind currents for hundreds of miles if the right conditions exist. Effects from even a small portable device exploded at ground level can be potentially deadly.

Nuclear radiation cannot be seen, smelled, or otherwise detected by normal senses. Radiation can only be detected by radiation monitoring devices. This makes radiological emergencies different from