

Fact Sheet

Nuclear Power Plant

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FEMA

Nuclear power plants use the heat generated from nuclear fission in a contained environment to convert water to steam, which powers generators to produce electricity. Nuclear power plants operate in most states in the country and produce about 20 percent of the nation's power.

Nearly 3 million Americans live within 10 miles of an operating nuclear power plant. Although the construction and operation of these facilities are closely monitored and regulated by the Nuclear Regulatory Commission (NRC), accidents are possible. An accident could result in dangerous levels of radiation that could affect the health and safety of the public living near the nuclear power plant.

Know Your Risk and What to Do

- Contact your local emergency management office to learn about community emergency plans and what you should include in yours.
- Get additional information from the U.S. Department of Homeland Security (www.ready.gov), the American Red Cross (www.redcross.org) and the Nuclear Regulatory Commission (www.nrc.gov).
- Inquire about emergency plans and procedures at your child's school, at your workplace and at any institution where a member of your family is resident or receives care on a regular basis.
- Make a family disaster plan that includes out-of-town contacts and locations to reunite if you become separated. Be sure everyone knows home, work and cell phone numbers, and how to call 9-1-1.
- Assemble a 3-day disaster supplies kit with food, water, medical supplies, battery-powered radio and NOAA Weather Radio All Hazards, batteries, flashlights, and other items. If you have space and you are concerned about situations that might require lengthy shelter, consider storing food and water supplies for up to a month. For more information about assembling a disaster supplies kit, visit www.fema.gov/areyouready/.
- Gather important documents such as birth and marriage certificates, social security cards, passports, wills, deeds, and financial and insurance records. Store them in a fire- and water-safe location or safe deposit box.

Know the Terms

Notification of Unusual Event - A small problem has occurred at the plant. No radiation leak is expected. No action on your part will be necessary.

Alert - A small problem has occurred, and small amounts of radiation could leak inside the plant. This will not affect you and no action is required.

Site Area Emergency - Area sirens may be sounded. Listen to your radio or television for safety information.

General Emergency - Radiation could leak outside the plant and off the plant site. The sirens will sound. Tune to your local radio or television station for reports. Be prepared to follow instructions promptly.

Emergency Planning Zones (EPZs) - The plume exposure pathway EPZ extends about 10 miles in radius around a plant. Its primary concern is the exposure of the public to, and the inhalation of, airborne radioactive contamination. The ingestion pathway EPZ extends about 50 miles in radius around a plant. Its primary concern is the ingestion of food and liquid that is contaminated by radioactivity.

Before a Nuclear Power Plant Emergency

- Obtain public emergency information materials from the power company that operates your local nuclear power plant or your local emergency services office.
- If you live within 10 miles of the power plant, you should receive these materials yearly from the power company or your state or local government.

During a Nuclear Power Plant Emergency

- Keep a battery-powered radio with you at all times and listen to the radio for specific instructions. Close and lock doors and windows.

If you are told to evacuate:

- Keep care windows and vents closed; use re-circulating air.

If you are advised to remain indoors:

- Turn off the air conditioner, ventilation fans, furnace, and other air intakes.
- Go to a basement or other underground area, if possible.
- Do not use the telephone unless absolutely necessary.

If you expect you have been exposed to nuclear radiation:

- Change clothes and shoes.
- Put exposed clothing in a plastic bag.
- Seal the bag and place it out of the way.
- Take a thorough shower.
- Keep food in covered containers or in the refrigerator. Food not previously covered should be washed before being put in to containers.

After a Nuclear Power Plant Emergency

- Seek medical treatment for any unusual symptoms, such as nausea, that may be related to radiation exposure.

The Recovery Process

- For direct assistance to individuals and families for immediate needs contact the American Red Cross or other local voluntary agencies.
- Check newspapers, television, or radio news for information on disaster assistance available.
- For information on helping children deal with disaster, visit www.fema.gov or get a copy of FEMA 478 **Helping Children Cope with Disaster**. To obtain other fact sheets and publications call the FEMA publications warehouse at 1-800-480-2520.

Dangerous Nuclear Power Plant Myth!	The Facts:
Sheltering will result in a higher radiation dose than evacuation.	When the public evacuates, they are removed from further exposure to radioactive materials, and under most conditions, evacuation is preferred. However, there are many instances where sheltering may be the preferred protective action. Sheltering may provide protection that is equal to or greater than evacuation, taking into consideration such factors as weather, competing events, fast-breaking or short-term release, or traffic considerations. Make sure you follow instructions from your local emergency officials.