
Fact Sheet: Pennsylvania's Emergency Preparedness – Radiation

Background

Pennsylvania has the second-largest number of nuclear power plants in the United States, with nine operational reactor units at five nuclear power plant sites: Susquehanna, Luzerne County; Three Mile Island, Dauphin County; Beaver Valley, Beaver County; Limerick, Montgomery County and Peach Bottom, York County. More than 645,000 people live within a 10-mile radius of these facilities. A third of the state's total energy generation comes from nuclear power, just behind coal and well ahead of natural gas and other sources.

Monitoring and Surveillance

The Department of Environmental Protection's Bureau of Radiation Protection (BRP) conducts a comprehensive nuclear power plant oversight review program at the five nuclear power sites in Pennsylvania. This oversight responsibility includes routine site visits and safety review activities, off-hour surveillances, review of all license amendments, evaluation of generic and specific nuclear safety issues, participation in nuclear power plant emergency exercises, and the inspection of radioactive waste shipments.

BRP conducts routine sampling of air, milk, surface water, vegetation and fish, both independently and in conjunction with the nuclear facility's self-monitoring program. Environmental dosimeters record levels of radiation exposure around each facility. Sample analyses are reviewed, recorded, compared to the facility's findings and archived. When anomalies are observed, an investigation is performed, including consultation with facility personnel and follow-up sampling to determine the source.

Planning and Preparedness

The Pennsylvania Emergency Management Agency is responsible for overall preparedness for the state. In Pennsylvania, the *Pennsylvania Radiation Protection Act, 1984-147 (Act 147)*, deals specifically with radiation, control of radioactive sources and accidental releases of radiation from any of the nuclear-powered electric generating facilities in Pennsylvania. PEMA has developed a radiological emergency response program with plans for each fixed nuclear power generating facility.

In implementing the radiological emergency response program, plans have been developed for evacuation or protection of persons within a 10-mile radius of the plant. Each of the affected municipalities has a plan that addresses accidental releases of radiation at the plant. The law requires periodic exercise of these plans,

and every two years, a full-scale exercise involving several hundred people is conducted for each of the five facilities.

The Pennsylvania Department of the Environmental Protection is the lead agency for radiological and nuclear emergency preparedness and response and also coordinates with the appropriate federal agencies such as the Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA), Federal Emergency Management Agency (FEMA) and the Centers for Disease Control and Prevention (CDC) to ensure that Pennsylvania plans are current and in line with federal guidelines.

Public Health Response

The Pennsylvania departments of Environmental Protection, Health, Agriculture and Emergency Management, along with Federal and local partners work together with nuclear power plant operators to develop site-specific emergency response plans for nuclear power plant incidents.

The plans delineate evacuation routes, reception centers for those seeking radiation monitoring and possibly decontamination. State and local governments, with support from the Federal government and utilities, develop plans that include a plume emergency planning zone (for evacuation and sheltering) within a radius of 10 miles from the plant, and an ingestion planning zone (embargo of crops, milk and other food products grown or produced in that area in the event of a contaminating incident) within a radius of 50 miles from the plant.

Residents within the 10-mile emergency planning zone are required to be provided emergency information materials (via brochures, the phone book, calendars, utility bills, etc.). These materials contain educational information on radiation, instructions for evacuation and sheltering, arrangements for the persons with special needs, contacts for additional information, etc.

Taking potassium iodide (KI) may also be recommended in the event of a nuclear power plant accident. As part of its ongoing preparedness efforts, the Pennsylvania Department of Health offers free KI tablets to anyone who lives, works or goes to school within a ten-mile radius of the state's five nuclear power plant sites. The tablets are available year-round at the state and/or county health department offices located near nuclear facilities. People should NOT take KI unless directed to do so during a radiation emergency in Pennsylvania by state health officials or the governor.