EPA's Radiation Protection Standards

United States Environmental Protection Agency

About Regulations and Standards

EPA's mission is to protect human health and the environment. As part of this mission, EPA writes *regulations* that explain the technical, operational, and legal details necessary to implement federal environmental laws. Regulations are mandatory requirements that can apply to individuals, businesses, states, local governments, or other institutions. Many environmental regulations set *standards* that limit the amount of a hazardous material allowed in the environment.

Protecting the Environment from Radioactive Materials

EPA's mission is to protect human health and the environment from pollution. The Agency establishes certain generally applicable environmental standards to protect human health and the environment from radioactive materials. These radioactive materials emit ionizing radiation, which can damage living tissue and cause cancer. EPA does not regulate naturally occurring radiation or the non-ionizing radiation that is emitted by electrical devices such as cell phones.

EPA does not directly regulate the daily operations of nuclear power plants. The Nuclear Regulatory Commission (NRC) has regulatory responsibility for licensing and oversight of nuclear power plants and other commercial facilities that use radioactive materials. NRC implements EPA standards at applicable facilities.

Standards for Specific Sources

EPA's Office of Air and Radiation has issued regulations that cover specific types of materials and facilities that could pose significant risks to the public:

- **Nuclear Power Operations:** EPA's *Environmental Radiation Protection Standards for Nuclear Power Operations (40 CFR 190)* limit the radiation releases and doses to the public from the normal operation of nuclear power plants and other uranium fuel cycle facilities. The standards apply to facilities involved in the milling, conversion, fabrication, use and processing of uranium fuel for generating electrical power.

- **Spent Nuclear Fuel, High Level, and Transuranic Wastes:** EPA's *Management and Storage of Spent Fuel, High Level and Transuranic Wastes (40 CFR 191)* sets dose standards for public protection from the radiation from spent nuclear fuel, high-level wastes and wastes that contain elements with atomic numbers higher than uranium (transuranic wastes). The standards apply to the management, storage and disposal of spent nuclear fuel, and include provisions to protect groundwater from radioactive contamination.

- **Uranium Mill Wastes:** EPA's *Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR 192)* set dose and emission limits for the protection of public health, safety, and the environment from the radiological and chemical hazards associated with uranium and thorium ore processing, including their associated wastes.

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• **Air Emissions:** *Radiological National Emissions Standards for Hazardous Air Pollutants (NESHAPS) (40 CFR 61)* set limits for airborne radiological emissions from specific activities and facilities. For example, *Subpart H* of the standards applies to releases from DOE facilities. *Subpart W* limits radon emissions from tailings at operating uranium mills.

For more information, visit the EPA Radiation Protection website at: www.epa.gov/radiation

Other Regulatory Agencies

U.S. Nuclear Regulatory Commission (NRC)—The NRC regulates the civilian uses of nuclear materials in the United States by licensing facilities that possess, use, or dispose of nuclear materials; establishing standards; and inspecting licensed facilities.

U.S. Department of Energy (DOE)—DOE is responsible for regulating its nuclear activities to ensure protection of workers and the public from radiation. DOE is also responsible for disposing of spent nuclear fuel and high-level radioactive waste from the nation's nuclear power plants and for the management and disposal of radioactive waste and other radioactive materials associated with its nuclear weapons production and research and development activities.

U.S. Department of Transportation (DOT)—DOT, in cooperation with Nuclear Regulatory Commission and the states, governs the packaging and transport of commercial radioactive materials.

States—Most states have agencies responsible for regulating the use of radiation and radioactive emissions. Some states operate under an agreement with the NRC to license and regulate certain types of radioactive materials.

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