



Coal-Fired Power Plant Emissions

Approximately 52% of the United States' electricity is generated using coal as fuel. Coal is abundant and relatively inexpensive, but it also contains a large number of impurities.

Coal contains trace quantities of the naturally-occurring radionuclides uranium and thorium, as well as their radioactive decay products, and potassium-40. When coal is burned, minerals, including most of the radionuclides, do not burn and concentrate in the ash.

While most of the ash is captured, tiny solid particles known as "fly ash," including some radionuclides, escape from the boiler into the atmosphere. Current regulations focus on using control technology to reduce the amount of fly ash that escapes including most radioactive particles, and on proper disposal of the fly ash.

Who is protecting you

U.S. Environmental Protection Agency (EPA)

The EPA develops standards under the Clean Air Act; Clean Water Act, Safe Drinking Water Act; Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act for coal-fired power plants. EPA has primary responsibility for setting federal radiation standards for exposure to naturally-occurring radioactive materials.

The States

Each state has one or more programs to address radiation protection, including naturally-occurring radioactive materials. Most states also control public exposure to radioactive through programs implementing the federal Clean Air Act, Clean Water Act and other environmental laws under authority delegated by the U.S. Environmental Protection Agency.

U.S. Department of Energy (DOE)

The DOE provides grants for research and studies on coal-fired plants and on clean coal technologies.

What can you do to protect yourself

Radioactive and non-radioactive emissions from coal-fired power plants most strongly affect those living and working near the plant. The hazards associated with radioactive emissions are similar to those of other pollutants.

Steps taken to reduce exposure to non-radioactive air pollutants also will reduce exposure to radioactive pollutants. On days when the Air Quality Index (AQI) indicates dangerous or higher than average concentrations of air pollutants, follow recommendations made by local health officials, such as staying indoors. To find the AQI for your area, check the government's AirNow website.

Resources

You can explore this radiation source further through the resources at the following URL:

<http://www.epa.gov/radtown/coal-plant.html#resources>

We provide these resources on-line rather than here so we can keep the links up-to-date.