



OPPD's Fort Calhoun Station Radiation Facts

There is nothing new or mysterious about radiation. It has always been part of our natural environment. We are constantly exposed to radiation from the sun and outer space. Naturally occurring radioactive materials are present in the earth around us, in the buildings we live and work in, and in the food and water we consume. There are radioactive gases in the air we breathe, and our bodies themselves are radioactive to some degree.

The levels of this natural radiation vary greatly from place to place. Persons living in Denver, for example, receive double the amount of natural radiation as we do in this part of Nebraska and Iowa. That's mostly because of Denver's higher altitude.

We are also exposed to sources of radiation of our own making. For more than half a century, doctors and scientists have used X-rays and other forms of penetrating radiation. Medical diagnosis and treatment are the main sources of public exposure to man-made radiation, and the benefits in terms of human lives saved far outweigh any potential problems.

A nuclear power plant is also a source of man-made radiation, although in normal operations, the amount reaching the environment is so small that it's barely detectable.

The natural radiation we receive each year from the sun and earth, from what we eat and drink, and from medical diagnosis and treatment is hundreds of times greater than that released to the environment by a nuclear power plant.

Within a decade after X-rays came into use, it became apparent that they could be either beneficial or harmful depending on their use and control, and that protective measures were necessary. This applies to other kinds of radiation as well, including that produced in the nuclear power industry.

The effect that radiation from any source has on us depends upon the nature and power of the rays and particles that strike us. It also depends upon the length of time we are exposed to them, how much of our body surface is struck by them, and how much radioactive material we breathe or ingest into our body.

Consequently, nuclear power plants are designed and built to contain radioactivity and prevent it from reaching the environment, both during normal operation and in the event of an accident. These contain-and-prevent efforts by the industry have worked.