

Explosion at Chernobyl

The Big Blast

On April 26, 1986, at 1:23 a.m., Chernobyl became the site of the world's worst nuclear power plant accident. Operators were shutting down one of the reactors for maintenance when the power suddenly surged and the reactor exploded. The blast blew the reactor apart and sent radioactive gases and particles three miles into the atmosphere above the Soviet Union. The explosion killed two plant workers. Twenty-nine other people later died from radiation exposure.

Within days, more than 120,000 people were evacuated from an 18-mile radius around the plant. As fires inside the reactor burned, helicopters dumped tons of lead, sand and other minerals on the flames. Despite these efforts, the fires burned for 10 days after the blast, continuing to release radioactive pollutants into the air.

Where It Went

The explosion resulted in a huge cloud that soon split into two parts. One part of the cloud moved northwest toward Poland and Scandinavia, and then southwest across central Europe. The other part of the cloud moved east across Asia, over Japan and the North Pacific, and eventually reached western North America. And, as the reactor continued to burn, it released radiation that moved south and west of the plant. But, scientists believe that in most cases, the amounts of radiation deposited outside the Soviet Union were relatively low.

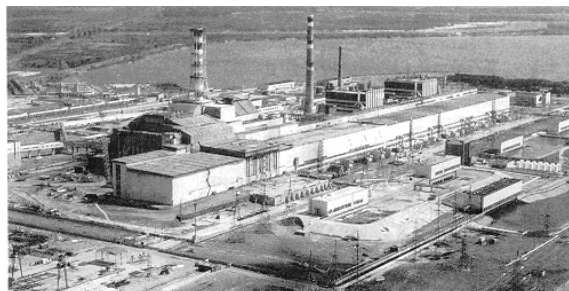
Effects of the Explosion

The first few weeks following the Chernobyl blast were filled with confusion. Some European countries ordered the destruction of millions of dollars worth of contaminated produce, milk and livestock. But, in other nearby European countries, people were told that there was no danger and that it was safe to consume these products. Farmers suffered huge financial losses when countries in other parts of the world refused to import produce from Europe. A significant portion of the released radioactive material has a very long half-life, i.e., it will be around for thousands of years. Radiation, even at low levels, can increase the incidence of cancer. Particularly sensitive are the effects on the digestive system, blood pressure and the heart.

The explosion also strained relations between the Soviet Union and other nations. Many countries were angered by the Soviet Union's delay in reporting the accidents; officials announced it on April 29.

Chernobyl's Legacy

The damaged reactor at Chernobyl now stands entombed in thick layers of concrete and steel, while the other reactors at the same plant are again producing energy. But, the disaster is still taking its toll. Some scientists predict that within the next few decades, thousands of people who were exposed to the radiation could develop cancer.



Story source: "The Path of Pollution," Texas Natural Resource Conservation Commission, <http://www.tnrcc.state.tx.us/air/monops/lessons/chernobyl.html>

Photograph source: República Argentina, <http://www.cnea.gov.ar/xxi/temas-nucleares/chernobil/quince.asp>

The Chernobyl plant remains a no-man's land nearly 15 years after the accident.