

# What happened at Chernobyl?



On April 26, 1986, the fourth reactor of the Chernobyl Nuclear Power Plant, exploded at 01:23 AM local time. The workers were performing an experiment with the reactor's safety systems. Problems occurred during the tests, the reactor did not receive enough coolant, had built up too much heat in the core, and had fully withdrawn control rods, all of which contributed to a very unstable and unpredictable reactor operation. When the control rods were reinserted in an

attempt to regain control of the unstable reactor, there was a sudden increase in reactivity, caused by the design of the RBMK reactor and its control rods, and an uncontrollable runaway reaction occurred. The reactor produced tremendous amounts of steam, eventually causing a steam break/explosion, which destroyed part of the reactor. Graphite fires broke out, due to the high temperatures of the reactor and that the graphite was exposed to oxygen, causing it to burn, which occurred after the reactor was damaged from the steam explosion. Radioactive debris was flung several miles, and smoke containing radioactive contaminants from the burning graphite, travelled as far as Belarus. All permanent residents of Chernobyl and the Zone of alienation were evacuated because radiation levels in the area had become unsafe. <http://en.wikipedia.org/wiki/Chernobyl>



The Zone of Alienation, which is variously referred to as The Chernobyl Zone, The 30 Kilometer Zone, The Zone of Exclusion, The Fourth Zone, or just The Zone is 30 km /19 mi around the site of the Chernobyl nuclear reactor disaster. Geographically, it includes northernmost parts of Kyivs'ka oblast' and Zhytomys'ka oblast' of Ukraine, and adjoins the country's border with Belarus

The plume drifted over parts of the Western Soviet Union Eastern Europe, Western Europe, Northern Europe, and Eastern North America. Large areas of Ukraine, Belarus, and Russia were badly contaminated, resulting in the evacuation and resettlement of over 336,000 people. The now-independent countries of Russia, Ukraine, and Belarus have been burdened with the continuing and substantial decontamination and health care costs of the Chernobyl accident. It is difficult to tally accurately the number of deaths caused by the events at Chernobyl, as the Soviet-era cover-up made it difficult to track down victims. Lists were incomplete, and Soviet authorities later forbade doctors to cite "radiation" on death certificates. [http://en.wikipedia.org/wiki/Chernobyl\\_disaster](http://en.wikipedia.org/wiki/Chernobyl_disaster)

