

Chernobyl nightmare haunts world 25 years on

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Military helicopter is seen spreading a chemical compound to reduce the contamination of the air full of radioactive elements above the Chernobyl nuclear plant, in 1986, a few days after its No. 4 reactor's blast, the world's worst nuclear accident of the 20th century.

The world next week remembers 25 years since the worst nuclear accident in history at Chernobyl, haunted by fears that the Japan earthquake has shown again the risk of atomic power sparking apocalypse.

Chernobyl has become a byword for environmental catastrophe, with the explosion at 1:23 am on April 26, 1986 realising the worst nightmare of what can happen when a [nuclear power plant](#) goes wrong.

Workers were testing the Unit 4 reactor at [Chernobyl](#) when design flaws

allowed an uncontrollable power surge, sparking explosions that completely destroyed the reactor and released five percent of its radioactive material into the atmosphere.

The radioactive matter settled in the nearby area and also blew over neighbouring regions in Ukraine, Belarus and Russia and even Western Europe, leaving a legacy of contamination that remains to this day.

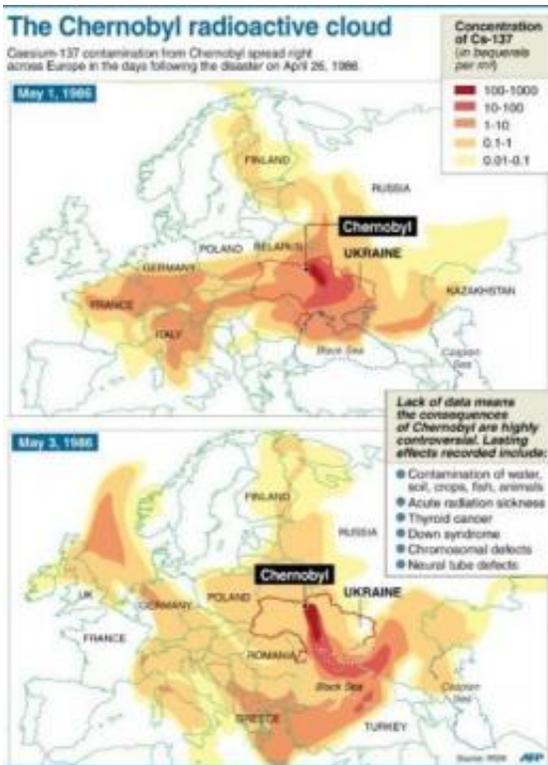
The disaster became notorious for the reluctance of the then Soviet leadership of Mikhail Gorbachev to admit the disaster, only releasing news of the catastrophe three days after it had happened.

In 1986 and 1987, the Soviet government sent half a million rescue workers (known as liquidators) -- still celebrated as heroes for their selfless courage -- to clear up the power station and decontaminate the surrounding area.

The resonance of Chernobyl was shown again when the Japanese earthquake damaged the Fukushima nuclear plant, releasing radiation into the surrounding area and immediately raising fears of a "new Chernobyl".

The damage at Fukushima reawakened the world's nightmares of nuclear disaster, prompting Germany to announce a moratorium on plans to extend the life of its nuclear power plants.

"The situation in Japan has shown nothing has changed in 25 years, neither the understanding of the danger nor the behaviour of the authorities," Ivan Blokov, director of programmes at Greenpeace Russia, told AFP.



Map of Europe showing radioactive contamination from the 1986 Chernobyl disaster, with details of the consequences

But despite the notoriety of Chernobyl, controversy has raged for years even between the UN's own agencies over the number of deaths directly caused by the disaster, with estimates ranging from tens of thousands to dozens.

There is no doubt over the immediate impact.

One worker at the plant was killed immediately in the explosion and another died shortly afterwards in hospital. In the subsequent weeks, 28 plant staff and rescue workers sent to the scene died of Acute Radiation Syndrome (ARS).

But agreement on the numbers ends there. In 2005, several UN agencies including the World Health Organisation, said in a report a total of 4,000 people could eventually die as a result of the radiation exposure.

But the UN Scientific Committee on Atomic Radiation (UNSCEAR) says only 19 ARS survivors had died by 2006 for various reasons not usually associated with radiation exposure.

In its latest February 2011 report it said there were 6,000 cases of thyroid cancer that were due to children drinking contaminated milk at the time of which 15 had proved fatal by 2005.

There was "no persuasive evidence" of any other effect on the general population as a result of radiation, it said.

But environmental campaign group Greenpeace in 2006 accused the UN agencies of grossly underestimating the toll, saying there would be an estimated 93,000 fatal cancer cases caused by Chernobyl.



On April 30, 1986, Soviet television showed this picture of the Tchernobyl plant on which a half-destroyed building could be seen, but commentary said there had been "no destruction, nor big fires nor major casualties."

A quarter-century after the disaster, concern remains over preventing the ruins of the reactor from wreaking further damage on the environment.

The Soviet authorities rapidly put up a supposedly temporary concrete shelter, dubbed the sarcophagus, to protect the destroyed reactor but there have long been worries about its durability and the highly radioactive material still embedded within.

A new sarcophagus is being built nearby and is scheduled to be erected over the reactor in the next years.

The European Bank for Reconstruction and Development, which is running the project, has received almost \$1 billion in donations but still needs another \$600 million and is hoping for pledges at a Kiev conference this week.

The Chernobyl disaster in no way deterred the former Soviet Union from nuclear energy and the soul-searching seen after the Fukushima disaster in Europe has not been matched in Belarus, Russia or Ukraine.

Nuclear power remains vital for Ukraine, a country of 46 million with relatively few natural energy resources and a politically unwelcome dependence on Russia for its gas supplies.



Oxana Gaibon (R),17,and Alla Kozimierka,15, both victims of the 1986 Chernobyl nuclear disaster, are pictured receiving infrared radiation treatment at a children hospital in Havana. The girls, along with hundreds of other contaminated Russian and Ukranian adolescents, received free medical treatment in Cuba as part of a humanitarian project.

Even Chernobyl itself continued producing energy until well after the collapse of the Soviet Union. Reactor number two shut after a fire in 1991, reactor number one closed in 1997 but reactor number three continued working right up until December 2000.

Ukraine has 15 reactors working at four plants in Rivne, Khmelnytsky, South Ukraine and Zaporizhia and the government is planning with Russian help to build two more reactors at Khmelnytsky by 2017.

Half a decade after the disaster the Soviet Union collapsed, with local leaders in Belarus and Ukraine using Chernobyl to argue that Moscow was incapable of looking after their peoples.

"Chernobyl was the nail in the coffin of the USSR. It clearly showed that the situation had escaped out of the control of the authorities," said Russian political commentator Dmitry Oreshkin.

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