

КОМИТЕТ ПО ОБРАЗОВАНИЮ ПРАВИТЕЛЬСТВА САНКТ-ПЕТЕРБУРГА

Санкт-Петербургское государственное бюджетное  
профессиональное образовательное учреждение  
«ПОЖАРНО-СПАСАТЕЛЬНЫЙ КОЛЛЕДЖ»  
«САНКТ-ПЕТЕРБУРГСКИЙ ЦЕНТР ПОДГОТОВКИ СПАСАТЕЛЕЙ»



Theme: **THE CHERNOBYL ACCIDENT**

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Дата: 19 сентября 2021 года

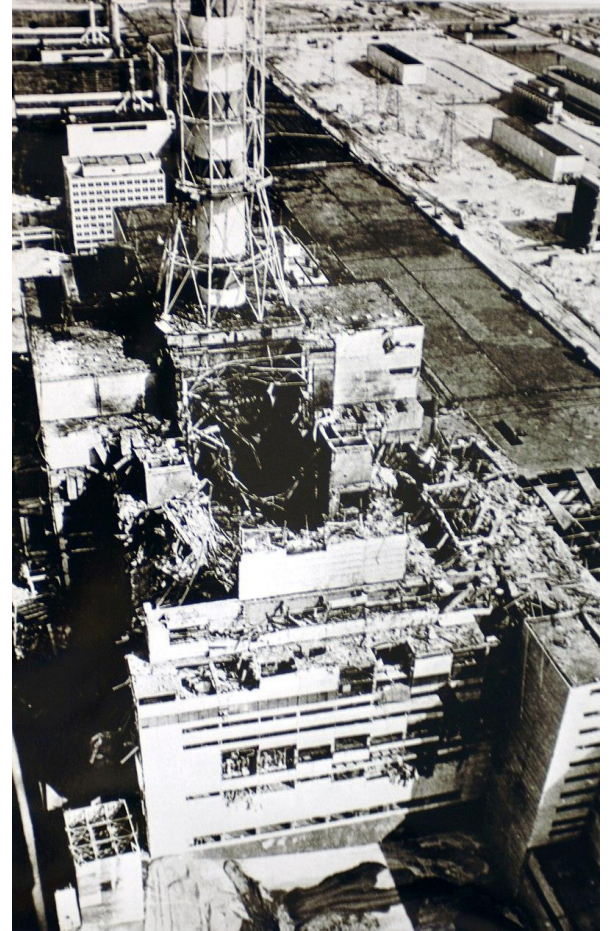
г. Санкт-Петербург 2021

# THE CHERNOBYL ACCIDENT

The Chernobyl accident occurred on April 26, 1986, at the the Chernobyl nuclear power plant in the Ukraine which used to be the part of the Soviet Union that time.

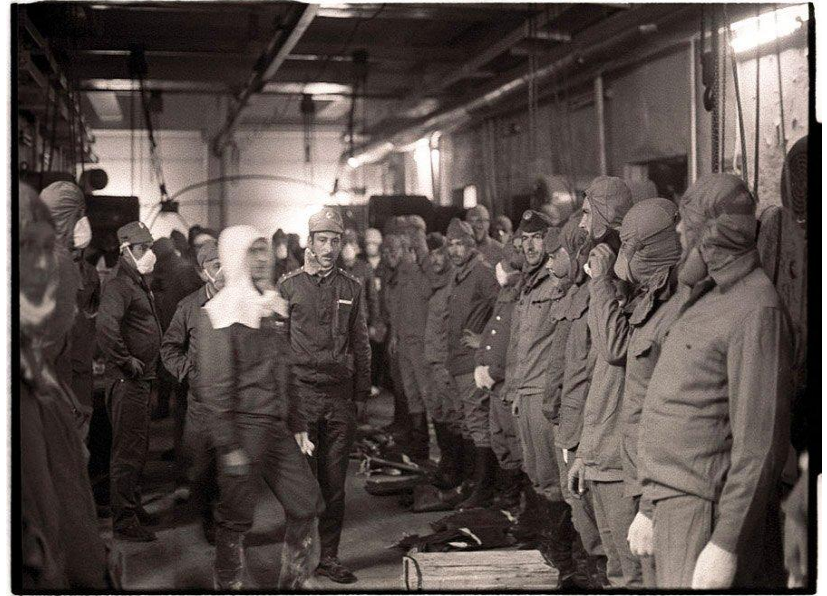
The Chernobyl accident was clearly a major disaster for the whole humanity. Public awareness of the risks of nuclear power increased significantly.

The workers involved in the recovery and cleanup after the accident received high doses of radiation, In most cases, these workers were not equipped with individual dosimeters to measure the amount of radiation received, so experts can only estimate their doses.



# Cleanup Crew

According to Soviet estimates, up to 600,000 people were involved in the cleanup of the 30 km evacuation zone around the reactor. In the first year after the accident, the number of cleanup workers in the zone was estimated to be 211,000, and these workers received an estimated average dose of 16.5 rem. In reality the number of people involved in cleanup processes can be higher. Besides liquidators there were many people who lived in that area. The accident produced a huge plume of radioactive debris that drifted over parts of the western Soviet Union, Eastern and Northern Europe, the UK, and even eastern USA. Large areas of Ukraine, Belarus, and Russia were badly contaminated. More than 300,000 people were evacuated and resettled. But many people remained to live on the contaminated grounds, some people who were evacuated returned and still live in the 30 km zone.



# Pollution and consequences

Some children in the contaminated areas were exposed to high radiation doses because of an intake of radioactive iodine, a relatively short-lived isotope, from contaminated local milk. Several studies have found that the incidence of thyroid cancer among children in Belarus, Ukraine and Russia had risen sharply.

Late in 1995, the World Health Organization linked nearly 700 cases of thyroid cancer among children and adolescents to the Chernobyl accident. In reality the number of cases of thyroid cancer and leukemia is much higher.

As to the short and longer-term effects of radiation after the accident the main health concern involved radioactive iodine with a half-life of eight days. Today, there is not the less concern about contamination of the soil with strontium-90 and caesium-137 which have half-lives of about 30 years. The highest levels of caesium-137 are found in the surface layers of the soil where they are absorbed by plants insects and mushrooms, entering the local food supply.

# Chernobyl and people

Soviet authorities started evacuating people from the contaminated area around Chernobyl within 36 hours of the accident. By May 1986, about a month later, all those living within a 30 km radius of the plant — about 120,000 people - had been relocated. On May, 1 the parade and other May celebrations did took place in Kyly, in the clty with 4 million population. These days the level of radiation in Kyiv was several times higher than the maximum allowable.



# Victims

According to reports from Soviet scientists, 35,000 km<sup>2</sup> were contaminated by caesium-137 to levels that can be very dangerous for people's health. It estimates that roughly 850,000 people lived in this area. That is why the issue of long-term effects of Chernobyl disaster on civilians is highly controversial. The number of people whose lives were affected by the accident is enormous. Over 30,000 people were resettled because of the accident; according to the official statistics around 600,000 participated in the cleanup; millions lived and continue to live in the contaminated area. On the other hand, most of those affected received relatively low doses of radiation; there is little evidence of increased mortality, cancers or birth defects among them; and when such evidence is present, existence of a causal link to radioactive contamination is uncertain.

# LINKS

[https://en.wikipedia.org/wiki/Chernobyl\\_disaster](https://en.wikipedia.org/wiki/Chernobyl_disaster)

<http://www.english-lessons-online.ru/chitalka/topics/globalnye-problemy-6>

<https://may.alleng.org/engl-top/560.htm>