

39 years since the Chernobyl nuclear accident



39 years ago, at 01:23 on the night of April 26, 1986, a routine safety test at reactor no. 4 of the Chernobyl nuclear power plant, located in Ukraine, then part of the Soviet Union, went out of control, causing the largest civil nuclear disaster in history.

A team of engineers performed a safety test at reactor no. 4. Due to human error and RBMK reactor design issues, the test got out of control. This resulted in a huge explosion, followed by fires and the release of a massive amount of radiation into the atmosphere.

Immediate consequences:

- Two workers died in the explosion.
- About 28 people (mainly firefighters and emergency personnel) died in the following weeks from acute radiation syndrome.
- Radiation spread throughout Europe, especially in Ukraine, Belarus and Russia.

Long-term consequences:

- Thousands of cases of thyroid cancer, especially in children.
- Permanent evacuation of the area around the plant within a radius of 30 km – Chernobyl Exclusion Zone.
- The disaster had a major impact on confidence in nuclear energy and accelerated political changes in USSR.

The area today:

The Exclusion Zone has become a place of scientific, ecological and touristic interest. Despite the contamination, many species of wild animals have returned to the area, and nature has "recaptured" the space abandoned by humans.

The impact of the Chernobyl nuclear accident on the Republic of Moldova was significant, even if the country is not in the immediate vicinity of the plant. Moldova was then part of the Soviet Union, and information about the disaster was initially kept quiet, which aggravated the population's exposure to radiation.

Consequences for Moldova:

1. Radioactive contamination

- The radioactive cloud moved to the southwest, and parts of the territory of Moldova were contaminated, especially in the north and center of the country.
- No immediate protective measures were taken, such as stopping the consumption

of milk or fresh vegetables, which led to the exposure of the population to radiation, especially children.

2. Health problems

- Increased cases of thyroid cancer, leukemia and other oncological conditions, especially among those directly exposed.
- Damage to the immune system, respiratory and reproductive problems, reported in the following decades.
- Psychological and social stress, especially in the lack of information and transparency of the Soviet authorities.

3. Social and Political Implications

- Dissatisfaction with the way the Soviet authorities handled the situation contributed to the rise of anti-Soviet sentiment and pro-independence movements in the late 1980s.
- Some Moldovans were sent as "liquidators" to Chernobyl – that is, they participated in the cleanup of the contaminated area. Many of them suffered serious health effects and did not receive enough support afterwards.

How to act in the event of a nuclear accident can make the difference between protection and major health risk. Here is what we should do in the event of a nuclear or radiological accident similar to the one at Chernobyl:

WHAT WE SHOULD DO IN CASE OF A

NUCLEAR ACCIDENT:

1. Listen to the authorities and the official media

- Follow the instructions of the authorities, who should issue alerts via radio, TV, internet or emergency apps.
- Do not rely on rumors — the correct information comes from the Inspectorate for Emergency Situations, the Ministry of Health, etc.

2. Take shelter immediately

- Enter the house or an enclosed space. Radiation spreads through the air.
- Close doors, windows and any ventilation (air conditioner, hood).
- Seal cracks or gaps in windows, doors, outside outlets with duct tape.

3. Stay indoors

- Stay in a central or basement area with as many walls between you and the outside as possible.
- Do not go outside until it is clearly said it is safe.

4. Use stable iodine (if recommended)

- Stable iodine (potassium iodide tablets) helps protect the thyroid gland from radioactive iodine.

- It is only taken on the recommendation of the authorities (otherwise it can be harmful) and should be distributed in case of emergency.

5. Avoid contaminated food and water

- Do not consume vegetables, fruits, milk, meat or water from unsafe sources.
- Food must come from safe or preserved reserves.

6. Personal decontamination

If you have been outside or suspect contamination:

- Take off your clothes immediately (clothing can contain up to 90% of the contamination).
- Take a full shower, wash with soap and water.
- Put your clothes in a plastic bag, seal them and notify the authorities.

7. Prepare an emergency kit

Includes:

- Radio with batteries
- Drinking water and canned goods for 3-5 days
- Flashlight, batteries
- Essential medicines
- Important documents, money, mask, change of clothes

Important:

Moldova does not have nuclear power plants, but it is close to the Zaporozhye nuclear power plant (Ukraine), which was/are at risk during war. Therefore, public education, emergency simulations and effective communication are essential.

