

KGB Order on the approval of the Instructions for Organising the Security of KGB Personnel of the Ukrainian SSR in the 30-Kilometer Zone of the Chernobyl Nuclear Power Plant

April 7, 1988

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1. To approve the Instructions for Organising the Security of KGB Personnel of the Ukrainian SSR in the 30-Kilometer Zone of the Chernobyl NPP (attached).
2. To the heads of KGB units and bodies of the Ukrainian SSR to organise a study of the Instructions with the management and personnel sent to perform official duties in the Chernobyl Nuclear Power Plant zone.
3. The Temporary Instruction on the Organization of Monitoring and Accounting of Potential Radiation Exposure Levels of Personnel of the KGB Operational Group of the Ukrainian SSR in the Special Zone of the Chernobyl NPP, dated June 5, 1986, No. 12/554-dsp, shall be deemed no longer in effect.

Committee Chairman N. Golushko

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Appendix to the Order of the Chairman of the KGB of the Ukrainian SSR dated April 7, 1988

Instructions on organising the safety of personnel of the KGB of the Ukrainian SSR in the 30-kilometer zone of the Chernobyl Nuclear Power Plant

I. General Provisions

1.1. Work in the 30-kilometer zone of the Chernobyl Nuclear Power Plant involves exposure to ionising radiation. To reduce its harmful effects, it is necessary to know and follow radiation safety regulations.

1.2. Radiation safety during work in the 30-kilometer zone of the Chernobyl Nuclear Power Plant is ensured by organisational and technical measures, including:

- dosimetric monitoring of the area or site of work using the capabilities of the Dosimetric Monitoring and Environmental Protection Department of the Production Association "Combine" (UDC PO "Combine");
- radiation monitoring of service and utility rooms by specially trained employees;
- correct and timely use of personal protective equipment;
- individual dosimetric monitoring;
- monitoring of internal radiation exposure;
- strict adherence to personal hygiene rules;
- sanitary and security measures when leaving the work area.

1.3. The organisation and provision of radiation safety for KGB employees working in the 30-km zone is the responsibility of the KGB Directorate for the city of Kiev and Kiev Region, which provides operational support to the nuclear power plant. The KGB Directorate is responsible for:

- ensuring daily monitoring of the radiation situation at KGB facilities and the immediate surrounding area within the 30-km zone of the Chernobyl Nuclear Power Plant, as well as

taking measures to eliminate contamination of these facilities with radioactive substances, utilising the capabilities of the Civil Defence and Military Security Service of the USSR Ministry of Defence task force;

- register KGB officers assigned to the 30-km zone of the Chernobyl Nuclear Power Plant and inform them of the radiation situation at their planned locations;
- organise the provision of KGB officers with special protective clothing, respiratory protective equipment, radiation monitoring equipment, and meal vouchers;
- monitor the radiation safety of special clothing and personal protective equipment and, if necessary, organise their decontamination or replacement;
- maintain a special log of radiation doses for employees permanently working within the 30-km zone. Calculate the radiation doses of those on assignment for periods of up to 10 days in accordance with the Instructions of the USSR Ministry of Health;
- organise investigations into cases of overexposure of KGB employees in accordance with established procedures.

1.4. Personnel directly performing these duties are appointed by order of the UKGB of the Ukrainian SSR for the city of Kiev and the Kiev region.

1.5. The Military Medical Service of the KGB of the Ukrainian SSR ensures:

- scheduled and preventive radiological monitoring at KGB facilities and adjacent territories within the 30-km zone of the Chernobyl Nuclear Power Plant;
- conducting expert assessments, with the involvement, where necessary, of relevant specialists from organisations and institutions of other ministries and agencies, to determine the radiation doses of individuals who, according to the UDC PO "Combine," received external or internal radiation doses exceeding the maximum permissible values;
- maintaining cumulative records of KGB employee radiation exposure based on data from the Dosimetric Control Department of the Combine Production Association, the Radiation Medicine Centre of the USSR Academy of Sciences, and a calculation method, and assessing these records;
- continuous monitoring of the health of employees of the Chernobyl Nuclear Power Plant KGB Department and KGB units of the Ukrainian SSR temporarily assigned to the 30-kilometer zone for official duties, as well as those who previously performed official duties in the accident zone;
- annual inpatient medical examinations for employees permanently working in the high-radiation hazard zone and their mandatory sanatorium-resort treatment;
- initial instruction for employees sent to the 30-kilometer zone of the Chernobyl Nuclear Power Plant on rules of conduct and personal hygiene in conditions of radiation contamination.

II. Procedure for dispatching KGB-UKGB employees to the 30-kilometer zone of the Chernobyl Nuclear Power Plant and the requirements placed on them

2.1. Employees traveling to the 30-kilometer zone of the Chernobyl Nuclear Power Plant must undergo a mandatory medical examination by the Military Directorate of the KGB of the Ukrainian SSR, where they receive appropriate recommendations and are required to sign a special logbook with the rules of conduct for the zone.

Employees' travel to the 30-kilometer zone of the Chernobyl Nuclear Power Plant is authorised only by the leadership of the KGB of the Ukrainian SSR and the UKGB Directorate for Kiev and the Kiev region, based on reports submitted by unit heads that bear a stamp from the Military Directorate of the KGB of the Ukrainian SSR confirming the absence of contraindications to stay in the high-radiation zone and their familiarisation with the rules of conduct and personal hygiene.

2.2. Upon arrival in the 30-kilometer zone, KGB officers are required to:

- register with the KGB department for the Chernobyl Nuclear Power Plant (registration log form No. 1);
- familiarise themselves with the radiation situation at their planned locations;
- obtain special protective clothing, food vouchers, and, if necessary, personal dosimetric monitoring devices (Order of the USSR KGB No. 78/DSP - 1987);
- strictly observe personal hygiene rules;
- use personal protective equipment correctly and promptly;
- prevent violations of radiation safety by other persons;
- upon leaving the 30-km zone, submit the personal dosimeter for processing to the person responsible for the personal dosimeter.

2.3. Upon completion of the assignment, employees are issued certificates signed by the management of the Chernobyl Nuclear Power Plant Department, indicating the time spent in the Chernobyl zone and the radiation levels at their locations.

2.4. Upon returning from a mission, employees are required to undergo a medical examination at the Military Directorate of the KGB of the Ukrainian SSR, which is recorded with the calculated values of radiation exposure. Following the examination, the certificate is submitted to the Human Resources Department of the UKGB of the Ukrainian SSR for the city of Kiev and the Kiev region.

2.5. Certificates of stay in the 30-km zone of the Chernobyl Nuclear Power Plant for employees of the KGB of the Ukrainian SSR and other KGB agencies, indicating the radiation doses they received, are provided by the leadership of the UKGB of the Ukrainian SSR for the city of Kiev and the Kiev region and sent to the personnel offices at their place of service (Order of the KGB of the USSR No. 0145-1987).

III. Standards for Permissible Radiation Doses and the Organisation of Dosimetric and Radiation Monitoring

3.1. The leadership of the Kiev and Kiev Region KGB Directorate, by order of the Directorate, appoints those responsible for organising and conducting dosimetric and radiation monitoring within the 30-km zone of the Chernobyl Nuclear Power Plant.

3.2. Those responsible for organising dosimetric and radiation monitoring are responsible for receiving dosimeters from the UDC of the PO "Combinat," issuing them and promptly returning them to the UDC for processing, recording radiation doses in a special log, and maintaining radiation monitoring at workplaces and in service and utility areas.

3.3. Radiation monitoring of contamination levels in premises, territory, and vehicles is carried out in accordance with the guidelines announced by Order of the USSR KGB No. 00120-1986 (Section 2).

3.4. Monitoring of external radiation exposure of personnel working in areas with radiation levels exceeding 10 $\mu\text{Sv/hr}$ is carried out using individual dosimeters, which are mandatory for each employee within the 30-km zone of the Chernobyl Nuclear Power Plant. When working or when personnel are in areas with radiation levels of less than 10 $\mu\text{Sv/hr}$, the calculation method for determining external radiation doses is permitted.

3.5. The dosimeter is attached to the chest of the protective clothing and worn at all times.

3.6. Opening the dosimeter, subjecting it to mechanical stress, or immersing it in liquid is prohibited.

3.7. In the event of loss or damage to a personal dosimeter, an employee is required to immediately report it to their supervisor, leave their workstation, and remain in an area where the radiation level does not exceed 3 $\mu\text{Sv/hr}$ until a new dosimeter is received. An explanation will be obtained from the employee who has lost the dosimeter.

3.8. Dosimeters of permanent and seconded KGB employees are periodically exchanged (at least twice a month) with the person responsible for the individual dosimeter.

3.9. Dosimeters may not be used for more than 15 days or stored as a backup due to the potential for additional measurement errors.

3.10. Establish, in accordance with the requirements of USSR KGB Order No. 78/DSP-1987, temporary differentiated standards for permissible external radiation doses:

- for personnel working in areas with radiation levels less than 50 $\mu\text{Sv/hr}$ — 50 mSv;
- for personnel working in areas with radiation levels of 50 $\mu\text{Sv/hr}$ or more, as well as for personnel of operational groups — 100 mSv;
- In exceptional cases, when conducting particularly important work and in the absence of medical contraindications, external radiation doses of up to 250 mSv are permitted for a limited number of employees participating in this work. Personnel may be admitted to this work with the permission of the Head of the VMU KGB USSR;
- Only individuals who have not previously been exposed to radiation or who have received a radiation dose of less than 50 mSv within a year may be allowed to receive doses of 100–250 mSv.

Personnel who have received the maximum permissible radiation dose of 250 mSv are not to be subjected to planned increased exposure. For personnel in this category, the maximum possible annual dose is set at no more than 50 mSv. They are to be permitted to work with sources of ionising radiation only upon the conclusion of a military medical commission of the KGB Military Forces of the Ukrainian SSR.

- Persons who have received a radiation dose exceeding 250 mSv are to be removed from work with sources of ionising radiation and sent for medical examination. All cases of unforeseen employee exposure above permissible limits must be investigated by conducting

dosimetric measurements, undergoing a medical examination, determining the causes of the overexposure, and taking measures to eliminate them.

IV. Rules of Conduct and Personal Hygiene

4.1. Upon arriving in the 30-km zone of the Chernobyl Nuclear Power Plant, employees are required to strictly observe the rules of conduct and personal hygiene.

After receiving a set of protective clothing, employees must undergo daily dosimetric testing for contamination. If permissible contamination limits (Appendix No. 2) are exceeded, the clothing must be replaced with new clothing. Clothing must cover as much of the skin as possible.

4.2. Before entering rest areas, clothing and footwear must be cleaned.

Footwear must be wiped with a damp cloth and detergent. After shaking out outerwear, it must be cleaned with a damp brush. In living quarters, a change of clothing and footwear is required. Wearing a head covering is mandatory.

4.3. Underwear and bed linen must be changed taking into account the results of dosimetric monitoring and the temporary permissible levels of radioactive contamination of objects in the Chernobyl Nuclear Power Plant zone (Appendix No. 2).

4.4. Work areas must be wet-cleaned daily, sufficient to ensure radiation cleanliness (standards—Appendix No. 3). Windows in living and work areas must be closed to prevent drafts. A damp mat must be placed at the entrance to the building and periodically washed with detergents.

4.5. In windy and dusty conditions, wearing a respirator or other respiratory protection is mandatory. During rain, it is recommended to seek shelter indoors or use a plastic cape or raincoat. Resting on grass or other open areas, staying in areas marked with a radiation hazard sign, and traveling outside the 30-km zone in protective clothing and footwear are strictly prohibited.

4.6. While in a high-radiation zone, eating, smoking, and using cosmetics are prohibited.

4.7. After exposure to high levels of radiation, thoroughly decontaminate exposed areas of the body.

4.8. When removing radiation contamination from your hands, first wash them with cold water and soap, then with warm water and soap, and then soak them again in cold water. If the contamination persists, repeat these steps with a brush for 3-5 minutes. For this purpose, it is recommended to use special detergents (soap, OP-7, OP-10, "Zashchita-7," "Radez-7," etc.). Cleaning radioactive contamination from your hands should begin with the fingers, interdigital spaces, and palms, then continue with the backs of the hands, paying particular attention to the nail beds.

4.9. When performing full-body disinfection, first wash your hands and the most contaminated exposed areas of your body, then rinse your mouth and nasal passages. Wash

your head while standing, tilting it back to prevent contaminants from getting into your eyes and mouth. Rinse your eyes from the inner corners to the outer corners. Then, disinfect the rest of your body.

4.10. In cases of open injuries (cuts, open fractures, etc.), remove the victim from the contaminated area and transport them to a medical facility.

4.11. Personnel are permitted to consume water and food products containing levels of radioactive substances that differ from the declared temporary permissible levels of radioactive substances in food products, drinking water, and medicinal herbs (total beta activity), provided that the total intake of radioactive substances with water and food does not exceed 11,100 Bq/day and 407,000 Bq/year.

Organisational, methodological, and control functions regarding the training of personnel for actions in radiation hazard conditions and the organisation of radiation and dosimetric monitoring are assigned to the Mobilization Department of the KGB of the Ukrainian SSR.

The instructions were compiled in accordance with the provisions of KGB USSR Orders No. 00120-1986, 0145-1987, 142/dsp-1984, 76/dsp-1987, 78/dsp-1987, NRB-1976, and the Radiation Safety Instructions for the 30-kilometer zone of the Chernobyl Nuclear Power Plant of the USSR Ministry of Atomic Energy.