Note on the moral and psychological atmosphere in the teams participating in the liquidation of the consequences of the Chernobyl accident in the first half of 1990

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Confidential

Reference note on the moral and psychological situation in teams participating in the liquidation of the consequences of the accident at the Chernobyl Nuclear Power Plant (in the first half of 1990)

One of the fundamental aspects of the safe operation of the Chernobyl Nuclear Power Plant, as well as the liquidation of the consequences of the accident in the zone and its surroundings, is the normal moral and psychological situation in teams.

In the first half of 1990, this was determined by:
– the adoption of the Supreme Soviet of the USSR resolution of April 25, 1990, on the early termination of the operation of the Chernobyl Nuclear Power Plant;
– the reorganisation of the Pripyat Scientific and Production Association, with the transfer of the contracting authority for the construction of the city of Slavutych to the Chernobyl Nuclear Power Plant (as determined by Order No. 328 of the USSR MAEP dated December 19, 1989);
– the creation of the All-Union Association of Nuclear Power Plant Operating Personnel;
– the revitalisation of the Chernobyl Union and other informal organisations.

Following the gradual transition of the Chernobyl Nuclear Power Plant personnel to a shift-free work schedule (1988–1989), the staffing of permanent industrial personnel at the plant is almost complete.
According to the staffing table, actual number are:

Industrial and production personnel: 4,191 needed, 3,985 employed
Operational personnel: 1,241 needed, 1,195 employed
The issue of training senior operational personnel remains relevant:
Plant shift supervisor: 9 staff members, 3 more required;
Unit shift supervisor: 24 staff members, 6 more required;
Senior control engineer: 24 staff members, 5 more required.

Along with the challenges of improving the qualifications of operating and maintenance personnel, ensuring accountability and technological discipline, questions about maintaining the level and limits of safe operation of the Chernobyl Nuclear Power Plant (CNPP), related to the prospect of continued work at the NPP and residence in Slavutych, are becoming increasingly pressing. The lack of any specific information about the plant's decommissioning timeline and legal and social protection for workers leads to a weakening of discipline and, in some cases, downright negligence in their duties.

Many specialists are asking understandable questions about what they will do after the Chernobyl Nuclear Power Plant (CNPP) is decommissioned. The work of decommissioning (dismantling) of the power units is not appealing to many, as most of the CNPP personnel are young (their average work experience is no more than two years, including in the nuclear

power industry), and the prospect of professional advancement at a decommissioned plant is considered problematic.

The measures taken by the Chernobyl Nuclear Power Plant administration are half-hearted, as the plant's problems have received significantly less attention from the ministry and other agencies involved in nuclear energy.

There is a widespread belief among staff that, after the Chernobyl Nuclear Power Plant transitioned to a shiftless work schedule, many responsible managers have abandoned their responsibilities and do not understand the severity of the current situation. A trend toward resigning of specialists from the nuclear power plant has emerged.

According to the HR department, over the past months of this year, the number of resignations is approximately twice the number of hires (392 and 160 people, respectively). Attempts by the USSR Ministry of Atomic Energy to resolve the personnel problem by seconding specialists from other nuclear power plants have not resolved the issue, as people are reluctant to come, and those who do arrive do not always possess the necessary qualifications.

Furthermore, the problem was exacerbated by the fact that a commission of inspectors from the Southwestern District of the Nuclear Supervision Authority (GAEN), which worked at the plant in March and April of this year, determined that the level of safe operation was not fully ensured.

A number of inspectors (as reported to the staff) demanded that the plant be shut down in April to address the deficiencies. Although these proposals were not accepted by GAEN management, many Chernobyl NPP specialists express the opinion that the actions of the regulatory authorities are a kind of first official step toward documenting the need for the closure of the Chernobyl NPP.

The situation in Slavutych, where nuclear power plant personnel reside, remains tense.
As of June 1, 1990, 15,053 people are permanently registered in the city, including 4,541 families and 5,502 children. Of these, 6,229 are Chernobyl Nuclear Power Plant employees, 3,084 are their families, and 3,515 are children. The housing waiting list is 2,022 people (671 single individuals, 341 families of two, 575 families of three, and 384 families of four or more). The most difficult housing situation has developed in the city-forming organisations, especially the Slavutychatomenergostroy Trust (the general contractor for the Slavutych construction project).
This is due to delays in the delivery of residential premises due to a lack of building materials, poor quality work performed by contractors, and insufficient qualifications of engineering and technical personnel.

Contractors DSK-5 of the Armaviastroy Trust and SMU Azslavutichstroy are almost always not present on their projects due to a lack of building material supplies from the republics.

Furthermore, the situation will worsen due to the fact that, at the request of residents of the Baku Quarter, a commission from the Chernobyl Nuclear Power Plant Construction

Department and the State Construction Supervision Authority (Gosstroynadzor) conducted an inspection of seven residential buildings constructed by Azslavutichstroy. The inspection found that 52 out of 270 apartments require major repairs due to poor construction and finishing work, some of which require the relocation of residents.

The situation with preschools remains challenging. Currently, there are six kindergartens in the city for 2,760 children. Demand for places in preschools at the Chernobyl Nuclear Power Plant for 320 children and at city organizations for 480 children remains unmet.

According to the majority of city residents, the city's social and living conditions are inadequate, largely due to a lack of attention to existing problems on the part of the ministry and national agencies. These difficulties are particularly painful given that numerous promises were made at the beginning of the city's construction, many of which have not been fulfilled. There have been miscalculations regarding employment for other family members. Amid a severe labour shortage in several areas, 280 people are unable to find work in their field.

One of the main reasons for the current situation is the failure of construction companies to meet their capital investment plans (a shortage of building materials). Over the first five months of this year, the Slavutychatomenergostroy Trust and its contractors have completed 85% of their construction and installation work plan (10.69 million roubles). The planned completion dates for housing and social and cultural facilities (a clinic, the main hospital building, a semi-finished food factory, and a vegetable storage facility) have been missed.

The situation in the village of Lesnoye, where 2,800 people, mostly construction workers and employees of city-forming organisations, currently live in temporary housing, is exacerbating the situation. Most of the housing is in a state of disrepair due to rotten floors, faulty plumbing, and other factors. Due to excessive iron salt concentrations, the drinking water is unsuitable for consumption. Hot water is supplied intermittently. This negatively impacts people's morale and, in some cases, provokes squatters to occupy ready-to-rent premises.

The pace of construction work in the city was negatively impacted (as many officials now acknowledge) by the decision to transfer the city's construction from the Pripyat Scientific and Production Association to the Chernobyl Nuclear Power Plant (Chernobyl NPP), as production structures and connections with construction experience had not been established at the Chernobyl Nuclear Power Plant.

The radioactive contamination of the city and surrounding areas has a significant impact on the situation in Slavutych.

In accordance with Government Commission Resolution No. 584 of January 11, 1990, the State Hydrometeorological Committee, the USSR Ministry of Health and the Ministry of Environmental Protection, the Council of Ministers, and the Ministry of Forestry of the Ukrainian SSR reviewed radiometric measurements and radiation dose assessments for the population of Slavutych. It was determined that the data characterising the radiation situation and those obtained by independent services of the aforementioned agencies are virtually consistent. The average gamma radiation dose rate in the city is 0.15 µSv/hr (at certain localized points, it reaches 0.6 µSv/hr).

The average gamma radiation dose rate in parks is 0.45 µSv/hr, reaching 1.2-1.3 µSv/hr in isolated areas (forests) to the west and east ("caesium spots") of the city.

The average cesium-137 contamination level in the area surrounding Slavutych is 118,400,000,000 Bq/km² [118.4 GBq/km^2]. In the city itself, after decontamination, cesium-137 contamination does not exceed 37,000,000,000–55,500,000,000 Bq/km² [37.0-55.5 GBq/km^2]. Maximum contamination levels are observed in the forests adjacent to the city to the west and east, reaching values of 555,000,000,000 Bq/km² [555 GBq/km^2]. The average strontium-90 contamination level is about 22,200,000,000 Bq/km^2 [22.2 GBq/km^2] (maximum value is up to 74,000,000,000 Bq/km^2 [74 GBq/km^2]). Plutonium-239 (240) contamination is up to 1,480,000,000 Bq/km^2 [1.48 GBq/km^2].

Based on the conducted research, specialists concluded that the total radiation dose to the population of Slavutych in 1989 did not exceed 2 mSv, which is below the dose limit established by NRB-76/87, up to 5 mSv/year. However, some scientists argue that consuming agricultural products grown in the area adjacent to Slavutych, with its existing contamination levels, will increase the radiation dose and may exceed permissible limits. This, under current conditions, requires careful radiation monitoring of locally sourced products.

Negative sentiment was exacerbated by the refusal of the Ukrainian Research Institute "Grazhdanselstroy" to participate in the development of a project for a subsidiary farm for the Chernobyl Nuclear Power Plant on the lands of the Kotsiubynsky State Farm. The refusal was based on the conclusion of the Chernigov Regional Sanitary and Epidemiological Service (SES) that design and survey work on this territory could only begin after its decontamination.

Furthermore, the lack of a positive decision on additional payments related to living in contaminated areas (defined for settlements in the vicinity of the city of Slavutych by Resolution No. 315 of the Council of Ministers of the Ukrainian SSR dated December 14, 1989) has negatively impacted residents' mood.

The ongoing outreach efforts have not yielded positive results. These problems have been repeatedly reported to authorities. The establishment of the NPO Pripyat and the staff reductions carried out among the employees have led to a worsening social situation in the teams of the motor transport enterprise and the Dosimetric Monitoring Department. The main causes of dissatisfaction are the dismissal of employees arriving from remote cities across the country, changes in pay conditions, in particular, the denial of additional pay for particularly hazardous working conditions. The management of the association has taken measures to normalise the situation.

Obtaining permanent residence registration and housing in Kiev is cited as a problem of significance for a small group of individuals. The ambiguity and uncertainty of previous decisions regarding some employees led to A.S. Yurchenko, an employee of the Complex joint venture, going on a hunger strike on March 5th. Only after the intervention of representatives of the Government Commission on LPA and MAEP of the USSR did some clarity begin to emerge, and measures were implemented to positively resolve this issue, which brought about a return to normalcy.

Among the most important problems that could have far-reaching negative social and other consequences, experts highlight the problem of reconstructing radiation doses received by rescue workers in the first weeks in the absence of adequate instrumental monitoring. At the Chernobyl Nuclear Power Plant, dose reconstruction is carried out using a calculation methodology approved by the USSR Ministry of Health in 1986 and route sheets completed by rescue workers.

Based on the calculation results, certificates of received doses are issued, signed by the General Director of the Chernobyl Nuclear Power Plant. A significant number of individuals, including residents of evacuated settlements, may request a review of the received doses.

The social significance of resolving this issue requires a reconsideration of the attitudes of the relevant agencies, primarily the Ministry of Atomic Energy, the Ministry of Defence, the Ministry of Health, and the USSR Academy of Medical Sciences.

According to experts, proven methods and the results obtained from them should be legalised to prevent potential negative situations caused by the requirement to link received radiation doses with the resulting illnesses.

An equally important aspect is the radiation safety of working personnel. As experts note, the current level of monitoring does not meet the requirements of Radiation Safety Standards (NRB 76/87) because it does not account for all types of radiation, specifically for internal (into the body) intake of radionuclides. Thus, in April of this year, employees of Reactor Shop No. 4 and the Chernobyl Nuclear Power Plant's Radiation Safety Shop, working at the Shelter, submitted a collective statement to several Union agencies regarding the Chernobyl Nuclear Power Plant administration's violation of NRB requirements for personnel protection. This primarily concerns the methods and instruments for recording radiation doses received as a result of exposure to short-lived radionuclides, beta emitters, neutron fluxes, and "hot" particles.

The creation of the All-Union Association of Nuclear Power Plant Operating Personnel has had a significant impact on the situation in the zone. According to Chernobyl NPP employees, the creation of this association was prompted by the fact that neither the ministry nor other agencies related to nuclear energy are taking measures to enhance the industry's prestige or develop legal and social standards for personnel protection.

At the initiative of the Chernobyl and Kursk Nuclear Power Plant Operating Personnel Associations, the founding conference of the All-Union Association of Nuclear Power Plant Operating Personnel was held in Slavutych from April 24 to 26, 1990. Sixty-five delegates from 14 nuclear power plants across the country participated.

The conference reviewed and adopted the Association's Charter, the regulations for the Audit Commission, the temporary regulations for the Coordinating Council, an appeal to the USSR International Institute of Nuclear Policy and the USSR Council of Ministers, and a decision on the rehabilitation of the operators of Unit 4 of the Chernobyl Nuclear Power Plant, who caused the accident.

Regarding this last point, it should be noted that increased publicity has contributed to the intensified search by individual nuclear power specialists, including plant employees, for the true causes of the accident at Unit 4 in 1986. Their main conclusion is that the main cause of the accident was not the actions of the personnel, but the design flaws of the RBMK-1000 reactors.

Given the active involvement of the media in these matters, and the absence of a clear position and reasoned and qualified explanations from the Scientific Director (Kurchatov Institute of Atomic Energy) and the Chief Designer (NIKIET, Moscow) of the reactor, processes may develop in the direction of representatives of public and informal organisations demanding a new investigation into the causes of the accident and the prosecution of not only the specialists of the aforementioned agencies, but also the officials who "organised" the trial in 1987 (materials from press publications are attached).

The conference further noted that the association is a voluntary public-professional organisation, founded by the operating personnel of USSR nuclear power plants. The goals and objectives of the association are to improve the safety and reliability of nuclear power plant operations and to protect the social and professional interests of nuclear power plant operating personnel. The association's highest body is a conference convened biennially or at the request of the coordinating council.

A president (a senior turbine control engineer at the Chernobyl Nuclear Power Plant) was elected to head the coordinating council. There were no unconstitutional or extremist statements at the conference or in the delegates' speeches.

Recently, new informal groups have emerged, including "Perspektiva," created by the Slavutych City Committee of the LKSMU. Its leaders, during the preparations for the February session of the Supreme Soviet of the Ukrainian SSR, called for the shutdown of all Chernobyl Nuclear Power Plant units for the duration of the session. In this way, they believed, they would draw public attention to the problems of the Chernobyl Nuclear Power Plant and the city of Slavutych.

Another equally representative public organisation is the Chernobyl Union. The history of this organisation begins in 1987 with the unification of veterans at the Chernobyl Nuclear Power Plant and the creation of the "Chernobyl Nuclear Power Plant Veterans" society. This society, headed by a worker in the nuclear power plant's electrical shop, aimed to provide assistance to those Chernobyl Nuclear Power Plant workers who actively participated in the emergency recovery efforts. This assistance included medical care, spa treatment, and other services.

Moreover, the circle of individuals admitted to the society was limited by the criterion of having worked at the Chernobyl Nuclear Power Plant during the most difficult period (April-May 1986, before the introduction of pay benefits). It should be noted that the leaders achieved certain positive results in implementing their plans.

On this basis, in the 30-kilometer zone of the Chernobyl Nuclear Power Plant, in the absence at that time of any action by the Council of Ministers of the USSR and the Ukrainian SSR to provide benefits to participants in the liquidation of the consequences of the Chernobyl

accident, the idea of creating a Union of Participants in the Liquidation of the Consequences of the Chernobyl Accident (short name: the "Chernobyl Union") was born and implemented, incorporating all those who actively participated in the liquidation of the consequences of the Chernobyl accident.

Over the past four years, the Chernobyl Union held two conferences (May and October 1989), at which the Charter was defined and adopted, and organisational structures were elected (the Chairman—an employee of the Joint Venture "Complex," six deputies, etc.). In February of this year, the Council of Ministers of the Ukrainian SSR registered the Charter of the All-Union Voluntary Society "Chernobyl Union," which defined the Society as a mass public organisation called upon to protect the rights of citizens who participated in the emergency response at the Chernobyl Nuclear Power Plant, who suffered from the accident, and who were exposed to any type of ionizing radiation.

From June 15 to 17 of this year, the First All-Union Congress of the Chernobyl Union was held in Kiev, attended by 752 deputies from 12 union republics, 5 regional republics, and 58 autonomous republics and regions.
The following issues were discussed at the congress:
– Reports from the co-chairs of the regional structures of the Chernobyl Union;
– The structure and work of the existing organization and movements of the Chernobyl Union;
– Information about the Chernobyl Telethon;
– The charter of the Chernobyl Union;
– Elections of the leadership;
– Elections of the audit commission;
– Miscellaneous.
In addition, the issues of victim categories and participants in the Chernobyl disaster response, communication with the UN and UNESCO to develop a resolution on joint actions for the Chernobyl disaster response at the UN, and the creation of a commission "In Memory of the Victims of the Chernobyl Accident" were discussed.

At the congress, a new chairman of the Chernobyl Union was elected: V.F. Shovkoshitny, a deputy of the Supreme Soviet of the Ukrainian SSR and former Chernobyl Nuclear Power Plant worker.

It should be noted that parallel structures are being formed within the Chernobyl Union, such as the All-Union Voluntary Society "Chernobyl Workers," whose goals and objectives are similar to those of the union.

6th Department of the KGB