CHERNOBYL

| Nuclear power station | Reduction in capacity | Stoppage | | Total |
|---|---|---|---|---|
| | | Human error | Equipment failure | |
| Zaporozhye AES | 0 | 1 | 1 | 2 |
| Novovoronezh AES | 0 | 1 | 1 | 2 |
| Chernobyl AES | 2 | 1 | 0 | 1 |
| Rovno AES | 0 | 1 | 0 | 1 |
| South Ukrainian AES | 0 | 1 | 0 | 1 |
| Ignalina AES | 1 | 0 | 0 | 0 |
| Total: | 3 | 5 | 2 | 7 |

There were no violations of operational safety limits. The radiation situation at the power stations and in the monitored zones did not exceed overall the limits set for normal operation. There was no excess irradiation of personnel.

N. Sheteynberg, Deputy Chairman of the USSR State Committee Supervision of Work Safety in Industry and in the Nuclear Power Industry, answers our correspondent's questions.

[Rogozhin] Nikolay Aleksandrovich, the report notes incidents leading to a stoppage or reduction of capacity of nuclear power units. However, there are also other facilities on the territory of nuclear power stations where an accident could lead to radioactive contamination of the environment. Were there any such accidents at such facilities last month, or earlier?

[Shteynberg] As I understand it, you are talking about storage facilities for liquid and solid radioactive waste and storage facilities for spent nuclear fuel. These facilities are also under our committee's supervision. Recently there have been no accidents or other events of importance to safety there. True, there was a small leak of radioactive water from a container for the transport of spent fuel at the Kursk AES. This fact was noted in a report of nuclear power station incidents previously published in Izvestiya. We intend to continue to inform readers of all incidents that exacerbate the radiation situation, wherever they may occur.

[Rogozhin] The reports of the USSR State Committee for Supervision of Work Safety in Industry and in Nuclear Power Industry do not mention instances of injury to personnel at nuclear power stations. Tell me, have there been none, or is this area of the nuclear power station's situation not under the committee's supervision?

[Shteynberg] Indeed, issues of injury and work safety at nuclear power stations were not within our competence until recently. But of course, we showed an interest in this,. And I can therefore tell you that the level of injuries in the nuclear power industry is considerably lower than in other fuel and power sectors. This is due to the relatively higher standard of production work and personnel skills. Fron 1990, in connection with the amalgamation of the State Committee for Supervision of Work Safety in Industry and for Mine Supervision and the State Committee for the Supervision of Work Safety in the Nuclear Power Industry to form a single structure – the USSR State Committee for Supervision of Work Safety in Industry and in the Nuclear Power Industry – issues of work safety at nuclear power stations fall within the sphere of our commitee's interests.

[Rogozhin] Power units of the first generation, of an obsolete design, are among those now in operation. Judging by today's report, they do not particularly stand out from the others. Does this mean that their safety levels meet today's demands?

[Shteynberg] Enterprises built in various years are operating within the structure of the country's nuclear power industry. Some of the power units installed in the 1960s and 1970s are not up to present-day safety requirements for nuclear power stations. I am referring to the first generation of RBMK-1000 power units (the so-called "Chernobyl type") and the VVER-440 power units. A number of measures have been carried out at the RBMKs to rule out the possibility of repetition of accidents on the Chernobyl scale. However, it must be said frankly that in this case too the safety level of the reactors in question is not fully in accordance with today's increased requirements.

The substantial shortcomings of the first-generation VVER-440 power units are the lack of a containment structure to contain possible accidents and the relatively "weak" safety systems. Despite these features the first-generation power units are still operating reliably enough today. Nonetheless some of the obsolete units have already been decommissioned. The fate of the others will be decided as soon as possible.

## OTHER REPORTS

[15]

**Scientific association to eliminate Chernobyl consequences** A new scientific and production association called Pripyat has begun to function within the 30 km zone around the Chernobyl AES. The association, which has been established on the basis of the Kombinat association, will deal more comprehensively and effectively with all problems connected with clean-up operations following the 1986 accident. Apart from production and economic activities within the zone, and the collection, processing and dumping of radioactive wastes, the association will also handle the organisation and co-ordination of all research, international scientific and technical co-operation, testing and introduction of new technical means and decontamination procedures within the zone. This is the first time that a scientific and technological centre has been established to handle Chernobyl-related problems, according to Mikhail Sedov, general director of the new association. A co-ordinating scientific and technical inter-sectoral council will function in order to avoid duplicating the activities of scientists

and specialists and to increase the efficiency of their work. An international scientific centre is also being established. This initiative was supported by the JAEA and applications for participation have already come from the companies of 26 countries and eight international organisations.

According to Sedov, the Pripyat association will ensure more effective international scientific and technical co-operation on Chernobyl problems. Original technologies and technical means are being developed in the Soviet Union to make it possible to decontaminate the affected territories. It would be wrong to ignore world experience in this field. For example, foreign firms have expressed readiness to participated in the decontamination of the flood-plain of the Pripyat river where a large quantity of radionuclides is concentrated. One of new tasks being handled by Pripyat is to give assistance in work on contaminated areas of the Ukraine, Belorussia and the RSFSR. A clean-up training centre is being established for Soviet personnel and foreign specialists to draw on the experience in clean-up operations following the Chernobyl disaster. Training will be carried out in three main fields – decontamination, the handling of radioactive wastes, and practical dosimetry, Sedov added. *(Tass in Russian for abroad 1111 and in English 1421 gmt 9 Jan 90)*

[16]
**Resettlement of people because of Chernobyl accident** The inhabitants of a number of population centres in Zhitomir and Kiev Oblasts are to be resettled. The Ukrainian Council of Ministers has adopted this decision in connection with a more precise ascertainment of the ecological state of the territory subjected to radioactive pollution following the accident at Chernobyl AES. Much has been done in the republic to ensure normal life for people in the affected zone. Some 92,000 people have been evacuated from a 30-km zone adjacent to the station. However it has not been possible to ensure safe living conditions everywhere. Another 3,370 families -- more than 5,500 people -- have had to be moved; 18 multi-storey blocks of flats and approximately 2,300 individual houses with outbuildings and utilities, 11 schools, 16 kindergartens and creches, and dozens of health care, everyday and municipal service establishments will be built for them in Zhitomir and Kiev oblasts. It is necessary, in all, to carry out work to the value of R175,000,000. An extremely short time is set aside for this -- two years. At the same time practically all the housing and other priority social and consumer projects should go into service in 1990. *('Pravda' 12 Jan 90 second edition.)*

[17]
**Two killed in Kurakhovskaya GRES accident** More than 7,000 t of water burst out of a tank at the Kurakhovskaya GRES, in Donetsk Oblast, Ukraine, killing two people. The accident occurred during the testing of a new 10,000 cu m tank. More than 7,000 t of water had been pumped into the tank, when the latter began to leak. Workers brought welding equipment to stop the leakage, but suddenly the water burst out, killing two and knocking down a nearby crane. The crane's boom hit a 3,000 t tank containing fuel oil, all of which poured into the water. Bulldozer operators, working together with firemen, in the next few hours isolated the territory covered with fuel oil with banks of soil. Then the fuel oil was gathered and dispatched to a fuel storage where it was mixed with coal dust and burned in the furnaces of the power station. The station continued to function throughout the accident. The procurator's office has begun an investigation into the accident. *(Tass in English 1733 gmt 8 Jan 90)*

[18]
**Barnaul – Itat super power line** Construction has begun of a new 1.150 kV power line in Siberia from Barnaul to Itat. It is almost 450 km long. The line will connect the Altay with the well known Kansk-Achinsk territorial-production complex. As a result it will be possible to transfer suplus electricity from Krasnoyarsk's thermal power stations and hydroelectric stations to Kazakhstan, the Urals and the European USSR. The line is due to go on load in 1991. *(Moscow 1000 9 and 0700 gmt 10 Jan 90)*

## COAL

[19]
**Miners killed in Gorlovka mine accident** *(SU/W0107 A/11 and SU/W0109 A/11)* The state commission charged with investigating the causes of gas poisoning of miners at the Aleksandr-Zapad colliery has published its report. The document states that the tragedy was caused by chlorobenzene that penetrated into the pits via the water-containing rock as a result of the split in the floor of one of the seams. The gas reached the pits from the chemical works situated directly above the coal face. The incident was also assisted by the fact that the construction and utlisation of the gas storage in the works' yard was conducted without the necessary technical decisions and without adequate provision of equipment and control devices for gas production. All these and other breaches were established by the commission. It also concluded that the chemical works pollutes the environment. The commission named those responsible for the incident. They are the works director, the chief engineer, the chief mechanic and the environment protection officer. A criminal case against them has been initiated. "The commission considers that it is necessary to ban coal mining at the Aleksandr-Zapad colliery. Its eastern wing will be closed. As to the western wing, it could be exploited, but only after carrying out much work. *(Kiev in Ukrainian for abroad 2200 gmt 8 Jan 90)*

According to Academician Kudryavtsev, for six years the chemicals have been poisoning the pit-faces. The alarm was only sounded when lives were lost. *(Moscow 0600 gmt 11 Jan 90)*

As a result of total neglect of the installations and criminal negligence by specialists, dozens of tonnes of chlorobenzene leaked into the soil from storage tanks and pipelines at Gorlovka chemical works. The liquid penetrated the coal faces of the Aleksandr-Zapad mine. Three miners died, and 145 mine rescue workers who went to their aid suffered severe poisoning. A total of about 300 people, in all, went for