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Chernobyl still unsafe, experts judge

A new incident has taken place at the Chernobyl power plant in Ukraine. Two "technical mishaps" occurred during an international inspection of the plant.

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Eight years ago

On April 25, 1986, Unit No. 4 of the Chernobyl plant, with the total power of 3,200 MegaWatt, was under a planned experiment. All of a sudden the reactor went out of control, and at 1.23 a.m. on April 26, a considerable

part of the nuclear fuel exploded into atmosphere. It contained neptunium, all the plutonium isotopes, curium and even americium, one of the most dangerous elements of all.

"It was officially declared by the Soviet scientists and government, that the total amount of the transuranium elements released into the atmosphere didn't exceed 3-4 percent of all the fuel from the reactor," said Dr. Alexander Bolsunovsky, ecologist from the Monterey Institute of International Studies (MIIS). However, the scientists couldn't find 185 tons of nuclear fuel beneath the sarcophagus created for Unit No. 4.

"According to my own calculations," Dr. Bolsunovsky stresses, "the minimum released level is 30 percent and the maximum is 85 percent. Even

if we keep to the minimum figure, that would still make the radiation levels generated by the Chernobyl catastrophe eight to ten times more dangerous than it was previously thought. Even near Kiev, at a distance of 70 miles from the Chernobyl nuclear power plant, pollution levels are borderline." That means that the evacuation of 116,000 people from the polluted areas of Ukraine, Belarus, and Russia was (and is) insufficient.

Air samples taken in Sweden and Finland 8 years ago contained all the transuranium elements. All samples taken in Austria at the time of the accident, revealed the presence of plutonium isotopes with radioactivity levels 900 times higher than 1985 levels.

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CIS nuclear plants unsafe

(Continued from page 1)

Difficult to cure

Fifteen of the Chernobyl-type power reactors are still running: two at Chernobyl, two in Lithuania, and the rest in Russia. The good news is that Russia recently signed an agreement with the USA that will lead to the closure of the three Chernobyl-type plutonium production reactors in Tomsk and Krasnoyarsk. "This is an extremely encouraging start, if carried out and built upon," Mr. Selin believes.

"It will take not a single year to shut down these facilities," Dr. Bolsunovsky, who worked until recently in Krasnoyarsk, disagrees.

There is too little reason for optimism. It is even less, when one can find information about the "small" accidents in Russian NPPs. According to Alexander Gutsalov, First Vice-Chairman of Russian Nuclear Regulation State Committee, Unit No.2 in Balakovo NPP was shut down from July 1993 to March 1994 "for safety reasons," and only now it is permitted to work on 90 percent of its capacity.

"All reactors of Russian NPPs of the first generation contain a real threat to Russia, and to the world environment," insists Academician Alexei Yablokov, who is the Chairman of the Commission on the Ecological Security of the National Security Council of the Russian Federation. "To improve their safety systems and to reach the Western standards, Russia needs from \$17 to \$25 billion. That is of course unrealistic," Yablokov said in his highly provocative speech in Monterey this April.

The Western countries, including G-7 and G-24 (nuclear safety assistance group) offered former Soviet states \$700 million for improving safety of the old generation reactors, and they considered it a "significant amount of money."

It is clear that in these times of economic transition and political controversy for Russia, a consensus between the executive bodies is required. In Russia, in contrast, the contradictions are sharpening between the regulatory structure, so-called Gosatomnadzor, and the Ministry for Atomic Energy, which is a strong advocate of active development of both peaceful and military nuclear programs.

This is one of the main reasons why Gosatomnadzor is not permitted to have constant inspections of Russian nuclear military centers, such as Krasnoyarsk-26 and Tomsk-7, as well as in the Pacific and Northern Fleets where the situation with used nuclear fuel from submarines is considered by Acad. Yablokov as "almost an unbelievable catastrophe." Yablokov claims that Russian MINATOM has special "classified files" on Russian NPPs' safety. He says that, for instance, these files include information that the Kola NPP is a "potential threat."

According to Russian laws, all official bodies must declassify information after a 20-year period. Last November, however, MINATOM was included by presidential decree into a "privileged list" of ministries which are free from declassifying their data.

Chernobyl non-stop

April 20, 1994, incident at Chernobyl rated one on the international scale and was triggered by a drop in water levels after a short circuit in a cable. "It was unfortunate this happens on the eve of the IAEA report on Chernobyl," Tatyana Yagish, a spokeswoman for the state nuclear authority, said to Reuters.

The IAEA team was inspecting Chernobyl after the Vienna-based agency issued a report saying the plant's continued operation was unsafe, especially that of the first reactor.

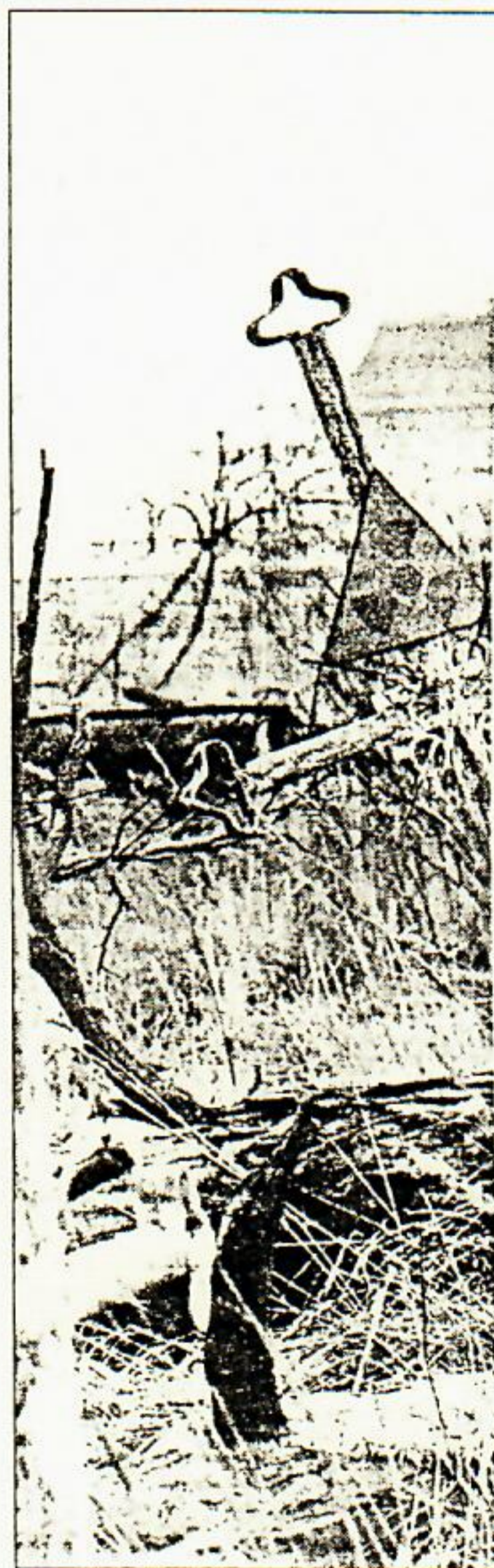
Meanwhile IAEA special session recommended to close Chernobyl NPP because of its unsafety (that was again proved by the latest accidents). Ukrainian officials speak about the future of this plant. Nikolai Steinberg, head of the Ukrainian Committee for

Nuclear and Radiational Safety, himself spent 14 years at Chernobyl plant. Now he says: "I agree that Unit No.1 should be shut down as soon as possible. The other Unit No. 3, however, is able to work for 30-35 years and it proved its safety during the 1986 catastrophe. The only minus for Unit No.3 is its neighbor — Unit No.4 or, better say, sarcophagus."

It seems that Mr. Steinberg himself is not against the reopening. He stresses that Ukraine badly needs more energy sources because of the deep energy crisis that will be even worse next winter. "We will close Unit No. 1 only if we open a new reactor — either in Khmelniitskiy or in Rovno. It may occur not earlier than in 3-4 years," Mr. Steinberg says.

At the same time, figures issued by the nuclear safety inspectorate showed an increase of more than 20 percent in reported incidents at Ukraine's five nuclear plants compared with the previous year — 175 to 142. Mishaps at Chernobyl nearly tripled from 6 to 16.

The other side of this problem is the



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undeveloped safety culture of the personnel. Mr. Selin told a story how he had visited Chernobyl reactor, still operating. The sloppiness and clutter were appalling. He remembers electric hazards everywhere. When he commented on it, his host answered sadly: "Our workers will not bend down to pick up an oil-soaked rag from the floor, even though they know that fire is the greatest of all safety risks in a nuclear plant. But if a fire breaks out, like the herein 1986, those same workers, without a moment's hesitation, will risk their lives heroically — even give their lives — to fight the fire."

According to the latest information, no Ukrainian and the mighty Russian power plants meet internationally-recognized requirements of safety.

Note: The article is based on the documents and presentations at the International Symposium "Nuclear Safety in the Former Soviet Union," Monterey, CA, April 1994.