

Tape 1 Side B

On the 2nd of May, the Government commission was already in Chernobyl. Nikolay Ivanovich Ryzhkov and Egor Kuzmich Ligachev arrived at the exclusion zone. Their arrival had a great significance. One day prior to their arrival the Government commission had decided to continue the evacuation from an area within

. This decision was based on a prediction of radioactivity spreading and analysis of current situation on the eve of the 2nd of May.

After our high-ranked guests had arrived, they deliberately started their visit from the places where evacuees had been placed. Then on the 2nd of May, they took part in the meeting carried out in the Chernobyl regional party committee together with comrade Scherbicky (who was here for the first time). Before that, the entire Ukraine Government was very actively and successfully represented by the Ukraine Chairman Deputy Nikolaev. This was a very important meeting. Firstly, thanks to our reports and I was a reporter, they understood the situation, understood that this was not an average accident but a high-scale disaster that will have long-term consequences, and that enormous amounts of work would be required to continue the localisation of the 4th block as well as to decontaminate the area and to build a shelter for the wrecked 4th block. An assessment of the situation was also needed, as well as considering the reactivation of the 1st, 2nd and 3rd blocks. And finally analyze the possibility of continuing the construction of 5th and 6th blocks. These questions were drafted out then. We also spotted an increase in radiation levels in Kiev and other cities which were quite some distance away from Chernobyl.

The party members and the government were quite worried about all this. That is why they came to personally sort these matters out at the location. After we had described the situation, the pivotal decisions were made. These decisions determined the entire order of organisational work for the rest of the period. The scale of the work, how all the organizations and the government itself perceived it.

The operative group led by Nikolai Ivanovich Ryzhkov was created and almost the entire Soviet industry was allocated to the disaster.

From that moment the Government Commission became only an administrative mechanism for that huge government work that was done under the control of the Operative group of the CCCPSU. The operative group held regular meetings where it was reported to about the radiation levels at each measurement point, all the details about the tasks being performed. In other words, I didn't know any big or small event that the Operative group of politburo didn't know about. Except for Nikolai Ivanovich Ryzhkov, the Operative group consisted of Yegor Kuzmich Ligachev, comrade Scherbikov, comrade Vorotnikov, comrade Vlasov - the minister of foreign affairs, Vladimir Ivanovich Dolgikh - secretary of the CCCPSU who on behalf of the Central Committee supervised all the events performed within the ChNPP and in atom energetics as a whole. As it seemed to me, he was doing that 24\7 without leaving aside his assigned other tasks.

I must say that at multiple times that I attended the Operative group meetings, these meetings were held in a very calm and conservative manner. They tried as much as they could to base their decisions on the specialists' point of view. However they also compared what many specialists say. In summary, for me it was an example of a correctly set up workflow. You know, I couldn't even assume that the Operative group would make such strong-willed purposeful decisions. These

decisions were targeted solely to deal with the situation faster, lessen the consequences. The work was like a well organized science team.

First - carefully studying the available information. Preferably information obtained from multiple sources and there were cases when the military had provided information that was different from what the civil services had given. This was especially the case for the radioactive outbursts in the 4th block - different services had been providing different information in the first stages of localization.

For example, different groups in June provided different estimates of the radioactivity that had escaped the 4th block.

In another instance, the GeoChem institute had provided report approved by academician Velikhov, that was based on their measurements that more than 50% of the reactor's contents had escaped its core and the Chernobyl power plant territory. They had estimated a colossal plutonium spreading zone on the territory of the Soviet Union.

The second group of specialists, who was working under the instruction of Lev Dmitrievich Ryabev, consisted of radiation institute staff of Ministry of Medium Machinebuilding, was measuring the activity only in some hydro physical points around the station. And they estimated the escaped fuel by the activity within their measured points.

Of course, this was wrong. The self absorption was not taken into account as well as many other factors. But nevertheless, judging by this basic overview they also had concluded that around half of fuel was inside the reactor and another half had escaped.

Finally the third group of specialists, which in the most thorough way had researched all the maps from Government Hydro Metric service, integrated all the activity from land-based and air services, comparing that to data that was received from abroad. They could not get any more than 3-4% of radioactivity that had escaped the 4th block.

All this information was accumulated in my sub-group and had practical effect on what actions and effort should we assign to decontamination and disposal works.

Because of these differences a commission had to be formed and Anatoly Petrovich was asked to be an arbitrator to search for mistakes. In the end it appeared that the GeoChem group was wrong, because their samples were taken in such a condition that they had included plutonium used in weapons coming from nuclear explosion period. These inaccuracies were accounted for, but that approach itself was not accurate.

Eventually all came to the following number: between 3% to 4% of the fuel was thrown out of the 4th block reactor. But during that period it created quite a tense situation. The Operative group itself however didn't show any tension at all. They just constantly performed more measurements, more elaborations and tried their best to understand the actual conditions.

During this time the Operative group was constantly trying to provide maximum protection for the people and judging from possible degrees of contamination decide on a compensation amount that would be necessary for the evacuees. I repeat that and I personally was a witness to that. They made many decisions specifically to help people who were affected by this accident. This is true for each and any case.

Another thing that surprised me about the Operative group is that it never tried to be secretive about their decisions. For example, decisions of some sort were taken like the launch date of 1st and 2nd blocks, or sarcophagus completion time, or works on 5th or 6th blocks, or Pripyat conservation decisions. Such decisions were adopted, but if some experimental data appeared that showed that the conservation of Pripyat could be avoided and it could be decontamination and even inhabited later, then the Operative would change their decisions according to new data, without seeing something bad in that change.

Nikolai Ivanovich Ryzhkov had been on ChNPP many times . The Operative group had to take many decisions about accepting or rejecting help from abroad, that was proposed at some time.

I wanted to say that aloud. But now recalling those days of May, I must say that after N.I.Ryzhkov and E.K.Ligachev had visited the accident sites and verified the situation, we received a command: the composition of the Government commission should be changed.

Boris Eudokimovich [Scherbina] remained the leader of the Government commission, but a decision was made that all further work on the site would be performed by a second group. While the first group would go to Moscow, on the site the second group would be led by the chairman of the Ministry Council [Ivan Stepanovich Silaev](#).

The entire group of the first Government commission departed, but Scherbina asked me and comrade Sidorenko to stay back for a while to finish the work. Sidorenko had to investigate the causes of the accident and I had- to finish the localization work on the 4th block. Formally however I had to be replaced in Silaev's team by Eugeny Petrovich Ryazantsev - deputy of the director of our Nuclear Energy Institute. He had arrived and then unexpectedly Eugeny Pavlovich Velikhov appeared in this group, I don't even know on which command.

I must say a few words here...

Eugeny Pavlovich Velihov who as it seemed was watching too much TV about the "China syndrome", arrived with concerns which I reported to Rizhkov and Ligachev. We were worried about the uncertainty of geometric shape of the remains of the reactor. It was clear that heat was being generated inside this fuel mass. The heating up could continue and some vertical movement of this fuel mass may occur. In particular, we were worried about two things: can that movement cause critical mass buildup in some region which would produce short-living isotopes. This was our first thing to worry about, however we were hoping that the large amounts of Boron (40 tons) that was dropped into the reactor would be more or less evenly mixed with the fuel and help prevent critical mass buildup. However we could not fully eliminate the possibility that such local "reactors" would appear. That was the first problem. And the second one was that the temperatures can be too high within these masses. Some construction elements of the lower part of reactor may not withstand that. Concrete may fail due to high temperatures. Part of fuel can get into the barboteurs, be it lower or upper one and we did not know at that time whether there was water or not. We feared that if a considerable amount of fuel gets there, then extensive vaporization would carry out additional radioactive aerosols and contaminate more territory.

These problems were what we were worried about. That's why with Ivan Stepanovich Silaev, who by this time had replaced Scherbina, we decided to: first, get some information about the levels of water in the lower barboteur. This was a difficult task which was fulfilled heroically by the station personnel. And it was found that the water was indeed there. So the necessary measures were taken to remove that water from there. I want to stress that out once more: we removed the water just to

avoid massive evaporation. It was absolutely clear to us that no explosion was possible, only evaporation that would carry out radioactive particles - that's all.

So just in case, the water should be removed and in case the fuel mass would melt it's way down into these rooms, we could pump the water back there, to cool the molten fuel masses.

Links to the interviews with the Chernobyl divers:

[Interview with Baranov \(Rus\)](#)

[Interview with Ananenko 1 \(Eng sub\)](#)

[Interview with Ananenko 2 \(Rus\)](#)

These decisions were accepted and written down in session protocols. But then Eugeny Pavlovich appeared and started talking about this "China syndrome" and those barboteurs; - lower and upper ones, that they could melt through and some fuel could get through them into the soil and into the groundwater.

Groundwater was only 32 meters deep under the Chernobyl station. In this particular aspect the station was rather poorly placed. Should the fuel get there, it would contaminate a considerable part of water in Ukraine.

Probability of such an event was extremely low, nevertheless, as a preventive measure and after some debate, the work to prevent this was approved, despite most of specialists being in doubt whether it was needed or not. Nevertheless Eugeny Pavlovich insisted on performing this work that is constructing a concrete bed under the reactor . To accomplish this, miners worked very hard led personally by the minister of coal industry comrade [Schadrin](#) and his specialists led by comrade Brezhnev from the Ministry of special heavy building who created the required tunnels under the 4th block. These tunnels were to be used to construct that concrete bed which had a cooling feature. This job was constructed and built in a very short period, but was completely useless, because no fuel got there and nothing had to be cooled.

Somewhere around the 10th day of May, Vyacheslav Dmitrievich Svetliy arrived, who was called by Velikhov. Svetliy brought a case with samples of various materials that had been melted using a laser or as a molten mass. This all had some psychological effect on Ivan Stepanovich Silaev and he authorized the .



All in all these measures were excessive. But at the time it was understandable that they were preventative just in case some mass got through by accident. This also had a considerable psychological effect on the population, demonstrating that measures were being taken to protect the groundwater. But from my point of view, why I wasn't an active supporter of this idea or even active opposer of it is because these jobs would require a lot of machinery to be concentrated in the zone. For that concrete supply had to be organized. Test what vehicles would be best-suited for the job within those conditions. Vehicle decontamination sites had to be organized and it had to be ascertained if they could even be fully decontaminated. What conditions should be prepared for the people that would work on that site and for how long should they stay there. And because the sarcophagus projects were just in the beginning of design stage, it was unclear what machinery and how much of it would it require.



But how to construct the concrete plate under the reactor - this was totally unknown to us. For me it seemed to be important that during this proactive stage the measures to supply people, to create proper living conditions for them, to gather experience for such a large scale work organisation. Because of that it seems that all the decisions were correct.

Entirely another case was when Eugeny Pavlovich proposed to construct another such plate under the wreck that was outside of the 4th block. And it seemed to him that there was also a lot of fuel. For this he we would have to allocate another ten thousand of subway builders, get them here to do that work. In this case I could not stand it so I wrote a very angry letter together with Anatoly Pavlovich where we strongly objected this excessive allocation of people who would get high radiation doses when constructing that second plate. Of course there was because we more or less knew where most of the radioactivity was distributed around each reactor zone.

Groundwater protection became one of our most important problems immediately around May. Because the Pripyat river by itself formed a considerable water basin, but even more - it was flowing into the Dnieper river. Well one does not have to explain about Dnieper. I will repeat myself that groundwater was relatively close to the surface under the station. So after it became clear that casualties of this accident were like hundreds of people, while tens were heavily injured and all the rest were curable - our main problem was to make sure the population safety around the Dnieper

basin. This was sort of central, very important task. Ofcourse, water contamination measurements were carried out constantly.