

Chornobyl: The Danger for the Global Civilization

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1.

I was born in Kiev in 1934. Kiev is the ancient capital of Rus-Ukraine with more than 1500-year history. Built on high hills above Dnieper – one of the biggest rivers in Europe – Kiev is famous for its ancient churches, monuments of history and architecture.

I remember the beginning of the German-Soviet war in June 1941: German aircrafts bombing Kiev, the Red Army retreating and our family evacuating from Kiev to Russia. We came back only in 1944 and found the native city burned and ruined. In 1958, I graduated from the Kiev Medical University and became an epidemiologist. I worked at the Research Center for Epidemiology and Infectious Diseases and took part in the fight against outbreaks of such diseases as abdominal typhoid, diarrhea, cholera, brucellosis, rabies, and other viral infections. While working in Asia, I witnessed plague and leprosy.

As a doctor, I traveled all over Ukraine, visited hundreds of villages and small towns. But until 1986, I had never been to Chornobyl.

Before the Chornobyl accident, I had never been interested in nuclear power and had only a very rough idea of what a nuclear power station was and of how a nuclear reactor operated. At the height of the Cold war, in the 1960-1980ies, citizens of the USSR were frightened by the nuclear war, the possibility of nuclear-missile strokes by the United States at the territory of the Soviet Union. We knew well about those horrors which befell Hiroshima and Nagasaki in 1945 and sympathized with the Japanese who suffered from the nuclear weapon.

In one of my surrealistic poems (I became a writer and published, starting from the sixties, novels, stories, poems and essays), I quoted data from the American book entitled *The Medical Effects of the Atomic Bombs in Japan*. I was amazed by the story of a Japanese mother who covered her child with her body and saved him from death in that way. The power of love turned out to be insurmountable for cruel gamma rays and neutron flows!

Despite all that, the possibility of a nuclear accident in the USSR never crossed our minds: we lived in hermetically closed totalitarian society with powerful propaganda machinery – one might say the Ministry of Lie – and almighty censorship. Until 1986, we did not know about nuclear accidents in the Soviet Union because all such information was classified.

2.

Saturday, April 26, 1986, was sunny and warm in Kiev: it was one of those really nice spring days when the weather causes joy to people tired because of long winter, March thaws and frost - during such days most of Kievians would go out. The trees had already become green. The first brave people bathed in Dnieper and sunbathed in suburban forests.

On that day we celebrated the birthday of a friend of mine – a well-known Kiev professor-physician. In the afternoon we went out to the balcony where we basked in the sun and took pleasure in the simple joys of life.

Suddenly, my friend said, “I had a call from the central hospital – they said something had happened at the Chornobyl nuclear power plant. Some accident. Victims were brought to the hospital.”

“It is quite possible,” I said carelessly, “Perhaps, they got burned by steam or were injured.”

My friend agreed. It did not cross our minds that on that day the humankind turned a new page in its history.

3.

Rumors about the terrible accident at the Chornobyl nuclear power plant (NPP) quickly spread all over Kiev. No one knew for certain what had happened there but there was no trace of carelessness in conversations. On the contrary, anxiety rose in the absence of official information. There were unbelievable rumors about thousands of victims, the imminent risk of a massive explosion at the plant and a possible evacuation of Kiev.

The first official communiqués were very brief and did not give a slightest idea of what was really going on at the Chornobyl NPP. A group of journalists from governmental newspapers Pravda, Izvestia and others started to publish reports from the scene of the events, focusing on feats of firemen and plant personnel. However, those publications provided no information about the issue millions of people in Ukraine and Belarus worried about – the danger posed to health, especially to children, by the radioactive substances with which the air, water and soil around the plant were contaminated.

All information regarding the level of radiation was subject to severe censorship and this fact frightened people even more. Everyone recalled Hiroshima and Nagasaki and no one believed the optimistic propaganda of the communist regime. Elderly people recalled the official propaganda lying in 1941 in attempt to conceal the truth about terrible losses of the Red Army in the beginning of the war.

History repeated itself. The policy of “glasnost”, proclaimed by the Secretary General of the Central Committee of the CPSU Michael Gorbachev in 1985, did not stand the first test and was compromised by the bureaucratic system which cared not about people, their physical and moral health but about the preservation of the authoritarian state model.

A friend of mine who happened to be in the building of the Central Committee of the Communist Party of Ukraine at that time told me that panic was reigning there. There was a long line to the in-house rail ticket office – the Committee staff bought tickets to take their families out of Kiev. At the same time, one of Kiev top officials, asked whether children should be taken out of the city, said, “We do not worry about Chornobyl. It worries us more whether vodka should be sold during holidays” (he meant the 1st of May – an official Soviet holiday; at that time, the fight against consumption of alcoholic drinks, initiated by M. Gorbachev, became a state doctrine).

On May 1, 1986, traditional Communist demonstrations were held in all cities and towns of Ukraine, including Kiev and areas neighboring the Chornobyl NPP: tens of thousands of schoolchildren were taken out in the street to create a festive mood. Later there was information that a part of Ukrainian leaders insisted on cancellation of the manifestations, which jeopardized children. Nevertheless, the head of the Ukrainian communists, dogmatist V. Scherbytsky, came to the demonstration with his 10-year old grandson, trying to set an example for his fellow party members.

Hypertrophy of thyroid gland and other health anomalies were detected later in many of the children who took part in those demonstrations.

4.

In 1984, I abandoned medical and scientific activities and totally devoted myself to literature. Now I had time for writing stories, novels and plays. Simultaneously, I worked as a correspondent for the popular Moscow newspaper Literaturnaja Gazeta (Literary Newspaper) and magazine Junost (Youth). At that time, those were liberal periodicals that supported Gorbachov’s perestroika and published bold articles

about the situation in the Soviet Union. I also contributed to some Ukrainian newspapers and magazines. The communist regime liberalized little by little, and true articles appeared on the pages of progressive periodicals more and more often.

However, in the case of the Chernobyl catastrophe, the old Stalin syndrome showed itself – no truth about the scale and consequences of the accident should have gotten out. Only articles full of official optimism were published.

People read and reread the official information, trying to understand something by reading the truth between the lines, but without success.

In the end of April – in the beginning of May, I discussed the problem with a friend of mine who was a representative of the Literaturnaja Gazeta in Kiev and we decided to try to get into the closed zone to find out at least a particle of truth. By then, there were no representatives of the Literaturnaja Gazeta in the zone – they were not allowed to write about the catastrophe. I expressed my wish to go to Chernobyl voluntarily, as a doctor-epidemiologist, and to write a series of articles for the Literaturnaja Gazeta about everything I would see there.

The Ministry of Health of Ukraine, where I went to obtain a permission to enter the zone of the catastrophe, was in a total mess and confusion. The Minister was in the United States and one of his deputies – the person with whom I used to work at the laboratory – acted for him. I made my way to his office and offered my help in informing the population about how to behave in conditions of a nuclear catastrophe. He waved me away and quite harshly said (before that we were considered friends) that it was not my business. He told me they knew themselves what to do.

Later I learned that there was a severe order of higher leaders hanging over him and other members of nomenclatura - to do all they can to keep the secret of the Chernobyl accident and its aftermath. In fact, that was a criminal order but, unfortunately, doctors had to execute it.

In a corridor of the Ministry, I was approached by a familiar radiologist, who whispered to me that the situation was very serious: the wind drove the radioactive clouds from the north towards Kiev. He recommended me to shut windows at home tightly, keep small children indoors and give all members of my family iodine in order to block thyroid from consumption of radioactive iodine. I was grateful to him for his advice.

I went to the drugstore situated near the Ministry of Health, in Lypky district – the area of governmental buildings and apartment houses for high state officials. There was quite a long line consisting mostly of pensioners. To my great surprise, everybody in the line asked for solution of potassium iodine! It turned out that doctors from the governmental polyclinic (the so-called 4th Department) had recommended their patients to carry out iodine prophylaxis. At the same time, millions of people that were in the zone of the accident had not been even informed about the nuclear catastrophe!

That warm and sunny day is engraved in my memory: thousands of men and women walking in the street; children playing, as usual, in sand-boxes in parks; people lining up to buy sneakers, canned green peas or some other scarce goods.

I was overflowed with the feeling of danger approaching the city. In the small square at Prorizna Street I said to a young mother playing with two children, “Take them away, it’s dangerous – there is radiation!” She looked at me as if I were crazy and harshly said, “Stop panicking. Go away and do not bother me.” That was the end of my attempts to save the younger generation of Kievans.

Only in the yard of my house I approached my neighbors who had a child born shortly before the accident and told them about the situation. They took the child immediately indoors and until now are grateful to me for the warning.

5.

The editors of the Literaturnaja Gazeta wrote a letter to the Minister of Health of Ukraine Dr. Romanenko. He finally came back from the USA – just when the wave of panic was growing. The Minister ordered to create a special medical group consisting of three professors – one from the Institute of Oncology, another one from the Institute of Endocrinology and me, in capacity of a doctor-epidemiologist with wide experience of fighting against various epidemics. It took three or four days to pass all bureaucratic procedures.

Finally, in the beginning of May, after all permissions and passes had been received, our medical car went to the north - to the regions directly neighboring the zone of the catastrophe.

The highway leading to the Chornobyl zone ran through a picturesque area near Dnieper, but everything that we saw was rather gloomy and disquieting – the highway reminded us of battlefield roads.

There were columns of military trucks and trailers laden with bulldozers and engineering equipment going towards the Chornobyl NPP. Vehicles with cattle slowly moved in the opposite direction. Poor cows - taken out of the radioactive zone, they did not know that they were conveyed to slaughterhouses! There were big problems with utilization of skins – the hair of cows was covered with large amounts of radioactive dust.

Villages looked extinct. The nature celebrated springtime: trees were in blossom, rivulets were filled with water and verdure was sappy.

The road traffic was regulated by officers of highway patrol police. I noticed their unnaturally red faces. I thought they had become sunburnt but I found out that the redness was caused by alpha-burns produced by radioactive dust. Many of those traffic-controllers did not have respirators and inhaled air contaminated with radioactive particles. Subsequently many of them became invalids.

One of my fellow travelers was joking all the time and commented on everything in an excited and ironic manner. We laughed loudly, as if we had taken a sip of good wine. This was a manifestation of the fear of the unknown - soldiers often felt that way when they approached a battlefield. The other doctor was more reserved. Later he became a leading expert in the field of endocrine diseases caused by the Chornobyl accident.

Our destination was Polisky and Invankivsky districts, which neighbored the place of the catastrophe and to which tens of thousands of evacuees from the 10-km zone were taken. Subsequently the area of alienation was enlarged to 30 km.

We had to evaluate the medical situation on the spot, give necessary consultations to local doctors and provide assistance in organizing preventive measures.

What we saw struck us: living 100 km from the zone of the catastrophe, we had no information about what was really going on near Kiev. The scale of those events reminded war: tens of thousands of evacuees, families who lost connection with their relatives and friends, numerous field hospitals and laboratories and hundreds of medical teams. Ambulance cars carried number plates from all regions of Ukraine. Hospitals were overcrowded. Offices of head doctors looked like improvised headquarters, where pressing decisions were taken regarding assessment of the radiation situation, ensuring monitoring of the radiation level of drinking water and foodstuffs, and organization of life of numerous medical personnel who came to the area of the catastrophe.

Absence of any reliable information regarding the level of radiation pollution of the area around the Chornobyl NPP was the main problem at that time. This information, which was available to the emergency governmental commission working in Chornobyl, was strictly secret. To assess the level of radioactive pollution of nearby areas, local health authorities had to use their own dosimeters designed for wartime and not sufficiently precise.

We met our colleagues—doctors and saw first victims of the accident at the plant. A local obstetrician-gynecologist told me that in the first days after the catastrophe, many pregnant women, succumbing to panic and being afraid to give birth to children-monstrosities, had abortions.

Another doctor took us to a hospital basement, where piles of mattresses, pillows and blankets lay. All that stuff remained after the first wave of mass evacuation and was extremely polluted with radioactive nuclides – as they said then, it “glowed”. Doctors did not know what to do with that – they encountered such problem for the first time.

It was during the first trip to the catastrophe zone that I started to record tapes. At first, I did not have any clear plan – I just wanted to record the most interesting stories about the catastrophe to use in my articles. However, soon I realized how powerful these materials could be if one would conduct a system questioning of everybody relating to the accident at the Chernobyl NPP and to overcoming of its consequences.

I started to collect testimonies purposefully and, in half a year, I had a big collection of tape records – from an academician to a student, from a NPP operator to a doctor, and from a farmer to a military helicopter pilot.

These records became a basis of the documentary story Chernobyl published in 1987. I still keep those old tapes – evidence of our tragic history, out of which the whole humankind should make conclusions.

6.

I got to Chernobyl just in a couple of days after the first trip. After passing several checkpoints, we drove into a desert highway, covered with some white substance, which led to Chernobyl.

I was really terrified. For the first time in life, I looked into an incredible, unnatural world of beyond – the world that no one on earth had seen before. I saw a nice Ukrainian small town with ancient history, in which destinies of Ukrainians, Poles, Jews and Russians intertwined. The town was desert, extinct, without usual almost countrylike, unhurried life. Shutters of one-storey wooden houses were tightly closed; a big padlock was hanging on the door of a church; all stores and institutions were locked and sealed. Life was in full swing only in front of the building of the District Committee of the Communist Party, where the governmental commission worked, but that was specific, half-military life. There were radio stations and armored troop carriers under masking net. Tens of black cars belonging to Kiev senior officials were parked nearby. These cars, which collected a lot of radiation, remained in the zone forever in a special “graveyard”.

It should be explained that Chernobyl, as an administrative center of Chernobyl district, did not practically relate to the nuclear power plant, which was built in 18 km to the north-west. The town only lent to the plant its name, which became world-known. The service personnel of the plant lived in the new town of Prypyat - much more modern than Chernobyl and located at the distance of 2-3 km from the plant. Prypyat, which consisted of comfortable apartment houses, was immediately covered with a radioactive cloud. The population of the town - more than 50 thousand persons - was evacuated in 24 hours after the accident, and the town practically ceased to exist. Prypyat became a sui generis Atlantis of the nuclear era, having disappeared forever.

The town of Chernobyl became a place of location of the governmental commission for combating the consequences of the catastrophe, headquarters of various research and engineering organizations, canteens and residences for those who participated in the liquidation of the accident aftermath.

New inhabitants of Chernobyl – mainly men – were dressed in white or green overalls of NPP staff or camouflage military uniform. Because of this circumstance, the town gave an impression of being on a

front-line.

I went to Chernobyl and Prypyat regularly (in fact, that was half-legal): first, together with doctors from the Ministry of Interior who were friends of mine, later with acquaintances from the Institute for Nuclear Research of the Academy of Sciences, who told me a lot of interesting facts – about possible causes of the explosion, about the radiation state in the zone and about the imminent danger of a new explosion.

The matter was that there were tons of radioactive water accumulated in the room under the nuclear reactor (so called bubbling chamber). If the red-hot core of the blazing 4th reactor had burned through the concrete floor and fallen into water, an extremely powerful steam explosion would have taken place and could have destroyed the 3rd reactor adjacent to the 4th one. Consequences of this new catastrophe could have been much more terrible than the effect of the events of April 26, 1986.

Now all efforts were directed at pumping water out of the bubbling chamber. Several teams of firemen, working in the zone of very high radiation, tried to bring fire-hoses to the bubbling chamber and to set pumps. I had an occasion to be in Chernobyl during those critical days. I saw pale, tired firemen, who had performed the dangerous work and come to a medical center for a checkup. I remember one officer said, “Now we can celebrate one more Victory day. There will be no explosion”.

7.

During those days panic in Kiev escalated to a breaking point. At the railway station, thousands of people stormed trains heading to Moscow. People tried to take children and grandchildren out of the city in the first place. Columns of cars were moving to the west and east of Kiev – in direction of Lviv and Poltava, which were not affected by radiation. Whole families were leaving, not believing in soothing words of the official propaganda.

In case of a new, steam explosion at the NPP, the whole Kiev was supposed to be evacuated. When I learned about that, I suggested to my mother preparing herself to the possible rapid evacuation. Mother, who was then 82 years old, looked at me sadly and said, “No, son. I already evacuated in 1941. I will go nowhere from the city anymore. You take the family and go. I will stay. I want to die here.”

Luckily, the evacuation of Kiev did not happen, but I remembered the sad mother’s voice and her refusal to leave the family nest for the rest of my life. I imagined that there would be a lot of people like my mother in the empty city. What would these old, infirm people do? What would their children do, being forced to leave their home?

Friends of mine gave me a dosimeter and my children amused themselves by measuring the level of radiation at our balcony. The readings exceeded background levels hundreds of times.

In the beginning of May, production of a film based on my scenario started in Kiev. A famous Moscow actor was invited for the role of the main hero. Everyone in the Soviet Union knew him for his role of a secret-service agent in a popular TV serial. In that film, the Russian agent somehow became a general of SS and, while working in Berlin, informed the Russian leadership about Hitler’s plans.

I went to meet the actor at the railway station. The morning train from Moscow arrived almost empty. A group of officers came out of it, met by other military men. Several casuals looked round frightened as if asking what happened in this radioactive Kiev to which they were so scared to go.

Finally, an elegant gentleman came out of the first class carriage. I recognized him immediately – that was the famous actor. He asked me angrily, “What is the mess going on here? Somebody spreads rumors about the scale of the accident. I have just come back from Austria, and they unleash an anti-Soviet campaign. They want to present us as a threat to the West in the interests of NATO. Don’t people in Kiev understand that? How can you succumb to propaganda of enemies?”

My efforts to explain him something were futile. We came to my house to have lunch. I asked him to take off his shoes on the doorstep, and my son passed the Geiger counter over his boots. The level of radiation was higher than the biggest scale mark of the counter. We showed the readings of the counter at the balcony covered with dust to the actor. Nevertheless, he refused to believe, being convinced that Kievians had become victims of anti-Soviet propaganda.

The next day he was filmed in a scene in the streets of Kiev in the course of the International Cycle Race. At the time when Western states refused to participate, the Soviet Union satellites – Poland, Czechoslovakia and others – sent their teams to the competition. To our horror, we could watch young well-trained men pumping over their lungs the Kiev air polluted with radioactive nuclides and “hot particles”.

Another shooting took place in the Institute of Neurosurgery: the actor played the role of a prominent Kiev cybernetician who was diagnosed with brain tumor. In the diagnostic laboratory, where the episode was filmed, we were told that they had stopped their activities because the level of radiation exceeded the allowable maximum hundreds (!) of times.

This information played a decisive role. The actor, who had accused Kievians (including me) of panic and Western governments of unleashing enmity towards the USSR, suddenly threw off his mask of a hero, turned pale, became pitiable and recalled his diseases that required him to return to Moscow promptly. Having spent incomplete three days in Kiev, he fled from the city infamously and disappeared forever.

I gathered a significant part of the information about the catastrophe, which became a basis for the documentary story Chornobyl, at Kiev hospitals where victims of the accident - NPP operators, firemen, military men and constructors – underwent medical treatment.

Those who received the highest doses of radiation were taken to Moscow by plane to a special hospital No. 6. The main indication of acute radiation sickness was irrepressible vomiting, which was evidence of the received dose above 100 rads (the annual allowable dose for NPP personnel was 5 rads!).

Some of the victims were doomed to death since their radiation doses were incompatible with life. Those people died despite all efforts of doctors. Even Dr. Robert Gale – the Head of the UCLA Center for Bone Marrow Transplantation (USA) - did not help them. I met this youthful swarthy doctor in Kiev in June 1986 when he came for the first time to visit local clinics. Thanks to television, the doctor became the most popular American in the Soviet Union.

We met each other repeatedly during Dr. Gale's visits to Kiev – at hospitals and international conferences. In 1996 – the year of 10th anniversary of the Chornobyl catastrophe – I met him in Washington, where I served as the Ambassador of Ukraine to the USA. Robert Gale was going through hard times of his life: several American doctors accused him of self-advertisement and of inadmissible commercial use of terrible pictures of patients from the Moscow hospital No. 6 (Gale published them in the popular magazine National Geographic). In the United States, there was a good film produced on the basis of his scenario about the Chornobyl events. Our meeting was cordial – we had memories to share about the days of the Chornobyl disaster.

At one of Kiev hospitals I met Mayor Leonid Telyatnikov, Hero of the Soviet Union and head of the military-fire unit No.2 of the Chornobyl NPP. On the day of the accident, Telyatnikov was on leave but, having received a distress call, he immediately went to the station. Having climbed on the roof, he saw that it was burning in several places above the 3rd block. The block still functioned and, if the roof had fallen to the reactor, the country and the world would have faced a catastrophe much more horrible than the 4th block explosion. Telyatnikov told me how he and his firemen had extinguished fire on the roof and how he had felt unwell after two hours of this infernal work - that was the beginning of acute radiation

sickness.

Thanks to Telyatnikov, I – and my readers together with me – learned the details of deaths of those firemen who rushed to extinguish fire in the reactor compartment of the exploded 4th block, ignoring radiation hazard (and, actually, not knowing seriously anything about it). They perished themselves in the radiation flame of the catastrophe...

Many acquaintances of Telyatnikov testified that he had come to the fire straight after a wedding, being not sober. Some nuclear specialists believed that alcohol protected from radiation and that explained Telyatnikov's survival despite the high level of radiation on the roof. Alcohol abuse "as a preventive measure" was widespread in the zone.

During two years – 1986 and 1987 – I regularly visited Chornobyl, Prypyat, the NPP and its surroundings to collect materials for the story.

During that time I lived simultaneously in two worlds. The new one was an absolutely incredible world of the nuclear catastrophe which seemed to come to the earth from the distant future, symbolizing the end of civilization. Coming back to Kiev, I immersed into the ordinary life with its usual joys and concerns – far from nuclear nightmares. In the former times, this second life had sometimes looked monotonous and boring but now, compared to the anti-world that appeared in the zone of the Chornobyl catastrophe, it seemed magnificent. Similarly, the lost peace appears so wonderful when there is war raging around. Those who were not in the zone during those days did not understand me: I felt delight in the most commonplace details of the city life – even operation of the subway, no-break power, regular watering of streets to wash away radioactive nuclides, removal of leaves polluted with radiation, control of radiation level of foodstuffs at markets, organized sending of children to the regions of Ukraine free from radiation and so on.

Panic of the first half of May 1986 has subsided, and inhabitants of Kiev got used to living under radioactive hazard - "spots" of increased radiation were detected at rooftops, in parks and on hillsides near Dnieper. Although maps of radioactive contamination remained secret, civilian defense forces and local authorities made efforts to deactivate the dangerous zones: top layer of soil in parks was collected and taken out of the city; buildings and playgrounds were thoroughly cleansed. It was much more difficult to ensure such measures in rural districts near the Chornobyl NPP: it was necessary to organize supply of milk to villages (farmers' cows that had collected radiation were slaughtered), delivery of drinking water (wells were polluted with radioactive nuclides), vegetables, bread and meat. The size of radioactive pollution zones was regularly assessed and, in a number of cases, decisions about resettlement of inhabitants of certain villages in "clean" regions of Ukraine were taken.

My first publications in Moscow and Kiev periodicals about the situation in the zone of the accident generated great interest and I started to receive hundreds of letters. I still keep these moving human documents of time, which give an idea of the gigantic scale of the events that affected destinies of millions of people in Ukraine, Belarus, Russia, other republics of the Soviet Union and neighboring countries.

During those days I often spoke in public in Kiev and was asked the most unexpected questions, answers to some of which I did not know then. I had a persistent feeling that an abrupt shift in the mood of most people took place in the country (at least in Ukraine). In fact, the USSR – once a seemingly imperishable empire whose territory stretched from the Kuril Islands to Berlin – started to dissolve in the hot summer of 1986. The state that was called the Empire of Evil was collapsing in the souls of people who had not forgiven the ruling Communist Party for lie and cynical ignoring of danger posed to children's health.

Never being a member of the Communist Party, I was surprised by the sharpness of the criticism

directed at Ukrainian and Soviet leaders, expressed by seemingly orthodox communists during various meetings. The era of Gorbachov, who advanced slogans of “perestroika” and “glasnost”, began from very deep public disillusionment over the ruling system of that day. This process, first unnoticed not only by western observers but also by Soviet political scientists, led to serious consequences in 1991 when the Soviet Union dissolved.

However, then, in 1986, few people thought about the incipient chain reaction that subsequently led to the USSR demise. The question about whose fault was the Chornobyl catastrophe seemed much more important. What did really happen at the plant on the night of April 26, 1986? Why the country turned out to be so unprepared to the biggest man-caused accident of the 20th century?

8.

I advanced towards my own understanding of the causes and consequences of the catastrophe slowly and practically blindly. That path was not easy – from the first, sometimes accidental impressions and meetings, from narrow perception of the scale and peculiarities of the catastrophe to comprehension of philosophical, political and social roots of Chornobyl. The work on the book Chornobyl (Moscow, Sovetskij pisatel Publishing House, 1991) took four years of my life – four years of intensive search for the truth, meetings, trips and study of documentary evidence of what had happened.

As I delved into the topic, professional secrets of the Chornobyl nuclear power plant revealed themselves to me. Thanks to testimonies of witnesses, it became possible to reconstitute the picture of what was happening during that terrible night in the premises where fatal decisions regarding conduct of an experiment with the nuclear reactor and energy-generating turbine were taken. Experts taking part in investigation of causes of the accident helped me (and my readers) to understand the sense of those events in greater detail.

If, during the trial, which took place in 1987 in Chornobyl, the main blame was put on the NPP top managers and operators of the 4th block, in the course of a more thorough study of all circumstances, it became clear that the RBMK reactor itself was imperfect and had become a source of increased danger. Being a typical military reactor designed to produce plutonium for atomic bombs, the RBMK reactor was characterized by instability: physical specifications of RBMK operation at reduced capacity were understudied, and reactor rods conducted, under certain conditions, to a sharp increase of reactor capacity, up to an explosion. All this resembled a situation when a driver, wishing to stop his car suddenly, steps on a break, but the car accelerates instead.

Certainly, the accident might have not happened, if it were not for the outrageous mistakes of the personnel who performed inadmissible experiments in the nighttime and turned off the systems of reactor protection. All this was evidence of serious problems that existed in the Soviet nuclear-power system – from reactor designers to ordinary operators.

I was greatly impressed by a meeting with one of the leading nuclear scientists, academician Valery Legasov, Deputy Director of the famous Moscow Kurchatov Institute, who was a member of the governmental commission working in Chornobyl. He was a man of great civic courage and scientific integrity, who was one of the first to understand that what had happened at the Chornobyl NPP was not an incident and not only an operators’ fault but a natural result of development of the Soviet system which was based on non-professionalism, lie and careerism.

For the first time in the USSR, he told the bitter truth saying that now not human-beings should be protected from technology but technology (complex and superpower) should be protected from human-beings. He was one of the first to understand that the RBMK reactor – the favorite brainchild of President of the USSR Academy of Sciences Alexandrov – was imperfect. This discovery of Legasov

undermined the myth about complete safety of the reactor, which was propagated by its designers. Many of Legasov's colleagues and Communist party leaders did not like this truth. The end of Legasov was tragic: he committed suicide on the anniversary of the Chornobyl catastrophe. Academician Legasov, who told the truth about the accident, became one of the victims of Chornobyl. My meeting with him remains one of the unforgettable events in my life.

For me, the dead town of NPP personnel Prypyat, in which more than 50 thousand people lived prior to the accident, became a symbol of the Chornobyl catastrophe and a bitter warning for the humankind.

The radioactive cloud that formed after the 4th reactor exploded immediately covered this beautiful modern town. There are amateur videos showing how the peaceful life of the doomed town passed – children playing on playgrounds, friends congratulating a newly wedded couple, people having rest – and no one thinks of the terrible danger threatening the inhabitants of Prypyat. At first, authorities tried to do everything possible to create an appearance of normality, but a sharply increasing level of radiation in the town forced them to make a dramatic decision – to evacuate the whole population of Prypyat, leaving only those who were engaged in salvage operations.

The decision about the evacuation was taken late at night on April 26 (the accident took place at 1:23 A.M. on April 26). Preparation for the evacuation took place all night long: more than a thousand buses were gathered, and in the early morning of April 27 (Sunday) they came to Prypyat and were parked in several town districts. Evacuees were allowed to take one bag (suitcase) with personal belongings. Stupefied by the necessity to evacuate, people were in shock. Many of them did not have time to take the most necessary. And what is more, they were leaving the town not for several days, as they were told, but forever.

FOREVER.

Even today, 20 years after the catastrophe, for many inhabitants of Prypyat, the memory of evacuation is the most painful. The peaceful life of thousands of people was tumbling down. This is reflected in the language of eyewitnesses of those events, who say “before WAR” (i.e., before April 26, 1986) and “then there was WAR.” The explosion at the Chornobyl nuclear power plant divided time into two parts – time before war (peaceful and beautiful) and time of suffering.

For the first time in the history of the humankind, a dead town appeared on the map of Europe during a peaceful period. In 1986-1987, I visited this phantom city dozens of times; I was in its houses deserted forever. 16- and 9-storied white buildings stood in silence. Building cranes froze forever over construction sites. The market place had turned into an auto graveyard with hundreds of cars rusting in the open air. Birds had left this dead city; no cats or dogs were seen. A building in the center was crowned by giant letters making a surrealistically sounding slogan of Soviet physicists, who were optimists before 1986, - “May atom be a worker not a warrior.” Wild grass grew through cracks in concrete, and white river sand drifted at the central square.

The town was sinking into non-existence as once Aztec buildings did. Maybe in a thousand years, archaeologists of the future will dig out the perished town – the monument of the nuclear catastrophe caused by human beings.

It seems I will remember forever the sickening smell of the dead town and the existential sadness of parting with life that I felt in this zone of high radiation.

From all warnings given to the humankind, Prypyat is, perhaps, the most sinister. Do not play with the nuclear genie. This artificial creature, after coming out of the bottle, may destroy life on earth.

9.

On the early morning of April 26, 1986, after the night explosion, several NPP operators made their way, with great difficulty, to the room from which the flank of the 4th block was seen. There were heaps of debris, torn-away slabs and wall panels everywhere. Water was gushing out of torn fire-mains. The room was covered with gloomy dark-grey dust. Fragments of reactor graphite were scattered all over the place.

“What we saw was so horrifying that we were afraid to express that aloud”, recalled a participant of that expedition to the edge of the nuclear night, saved by a miracle. – “The generous spring sun is shining over the ruins, over this terrible invisible danger. The mind refuses to believe that the most terrible thing has happened. But this has already become a reality, a fact. The reactor exploded. The explosion threw out of the reactor cavity 190 tons of fuel with fission products, together with reactor graphite.”

For those who were first to realize what had happened, that was equal to admitting the end of the world. That was nuclear hell.

The first feeling of the NPP personnel – from the director to operators – was a DISBELIEF in what had happened. I was astonished at this conservatism of so-called “professionals”, the dullness of their thinking. Their confidence in designers’ infallibility and reliability of the RBMK reactor was so strong and limitless that they refused to believe that the maximum hypothetical accident had taken place. Probably, people of the Earth, having learned that they planet is splitting up, would refuse to believe that in a similar way.

The lack of imagination, the technocratic philosophy of dull rationalism, the monopoly of a narrow group of scientists and technicians, who imposed their creature on society, the lack of objective expertise and other reasons contributed to the disaster.

This is one of the first lessons of Chornobyl: it is necessary to take into account an ever increasing danger for civilization emanating from technological supersystems - energy, biological, chemical and informational - which can go out of control as their complexity and capacity concentration increase.

That is why Chornobyl was not an ordinary accident. That was a challenge to sustainable development of the humankind, an alert sent to us from the future. Chornobyl raised the question of dead-end ways of technical civilization development.

The Chornobyl catastrophe is characterized by involvement of multimillion population masses (children in the first place), emergence of hundred thousands of environmental refugees, long-term radioactive pollution of soil, water (including groundwater) and air, irreversible change in the natural environment and a number of ecosystems. In the Chornobyl zone, the nature has returned to its wild state, to the medieval period.

Chornobyl participants and witnesses went through a severe psychological shock; many of them suffered a peculiar syndrome of “the end of the world” characterized by paralysis of the will to live, loss of all hopes, apathy, loss of libido, and suicidal tendency.

Chornobyl also emphasized the problem of efficiency of the state-political system that existed in the Soviet Union. All state and public mechanisms were subjected to a stability test – above all, those relating to quick decision-making on issues concerning security of millions of people. The totalitarian monopolistic one-party system of the Soviet Union did not survive the Chornobyl test. The USSR decline started from the Chornobyl catastrophe, as a result of which the communist system lost its credibility among the people.

The Chornobyl explosion caused a burst of public indignation over the system of official lies and concealment of truth. As a result of this, an environmental and political opposition quickly formed in

Ukraine. On the tide of this public discontent, I (at that time, the leader of Ukrainian environmental movement “Green World” and of the Green Party) was elected to the Supreme Soviet of the USSR. I fulfilled my election pledges – to tell the truth about Chornobyl. As the Head of the Subcommittee for Nuclear Power and Nuclear Ecology of the Committee for Environment of the USSR Supreme Soviet I initiated, for the first time in the history of the Soviet Union, hearings about the Chornobyl problem. By joint efforts, we tore down the curtain of secrecy created in 1986-1987 by nuclear- and military-industrial complexes.

Chornobyl drew attention to the problem of political stability of any state possessing nuclear reactors on its territory and to the related problem of international terrorism. It is not difficult to imagine possible explosions of nuclear reactors if such had been located in the countries that were seized with civil wars (Lebanon, Yugoslavia, Ethiopia, Rwanda, etc.). The problem of raising security of nuclear power plants becomes more and more topical because of the spread of international terrorism.

Today, 20 years after the accident that shocked the world, a number of problems remain unsolved. First of all, this concerns the problem of the “sarcophagus” – a giant concrete shelter constructed above the destroyed reactor. Corroded by radiation, the sarcophagus may be ruined under the influence of a hurricane or an earthquake shock. There are tens of tons of highly radioactive dust inside the sarcophagus. Each year tons of radioactive waters flow out of it.

If the sarcophagus tumbles down, that will lead to a new considerable emission of radioactivity and pollution of certain regions not only in Ukraine but also in neighboring countries. Therefore, construction of a new shelter above the old sarcophagus became the highest priority.

The issues concerning the health of hundreds thousands of people evacuated from the zone and those who participated in the liquidation of the catastrophe aftermath remain no less topical. The number of victims of the Chornobyl accident is estimated to be tens of thousands of the deceased, although there is no absolute agreement among medical experts as to the precise number of the dead and causes of deaths of many “liquidators”.

In conclusion of this short story about certain moments of the Chornobyl catastrophe, I should stress that, by its implications, Chornobyl can be compared to the most devastating wars and invasions of enemies that had serious political, environmental, medical, psychological and cultural consequences.

Chornobyl is a lesson for the humankind for all times which should never be forgotten.