

figures concerning economic wastefulness and environmental damage in the Western Siberian taiga and tundra—revealing, for instance, that one million tons of oil are spilled *annually* onto the territory of Tyumen and Tomsk Oblasts—but also asserted that “all of these ecological calamities affect the indigenous population first and foremost. We must remember that they have a special claim to these territories.” Roman Rudin, representing the Yamalo-Nenets Autonomous Okrug, noted that

one would think that the life of the indigenous population would have improved thanks to the profits the country receives from its oil exports. On the contrary, throughout the period of the development boom the average life expectancy has dropped from sixty-one to forty-seven years. By comparison, longevity among Eskimos in Canada and Alaska has increased by fifteen years. That is something to think about. The [oil] industry has striven to squeeze the maximum out of the North's rich endowments all these years without giving anything in return.

It could be argued that the small peoples of the Soviet North have a lot in common with the Kazakhs who rioted last month in the oil town of Novyi Uzen' and—much closer to home—with the Yakuts who battled Russians in the still little-known ethnic disturbances three years ago in Yakutsk.¹³ In these and numerous other cases, the central authorities have sent in large numbers of nonindigenous workers to exploit the natural resources of an area and, in the process, have turned the natives into an underprivileged class of powerless bystanders. Little in this approach distinguishes Moscow's bureaucrats from colonialists anywhere else in the world. The introduction of reservations or “restricted zones” in the taiga and tundra might, indeed, constitute a great improvement over what the indigenous peoples have now, if only they are not plagued by the same problems as the North American original.

¹³ For background on these two incidents, see Ann Sheehy: “Interethnic Disturbances in Western Kazakhstan,” *Report on the USSR*, No. 27, 1989, pp. 11-14 and RL 251/86, “Racial Disturbances in Yakutsk,” July 1, 1986.

(RL 323/89, July 10, 1989)

PUBLIC HEALTH

The Center for Radiation Medicine: Monitoring Victims or Concealing Facts

David Marples

Since 1986, the Center for Radiation Medicine of the USSR Academy of Medical Sciences has had the task of monitoring those who suffered high levels of radiation as a result of the Chernobyl' accident. In mid-June, 1989, the opportunity arose to hold a detailed interview with scientists from the center and to raise some of the more controversial questions about recent revelations from affected areas such as Narodichi and the southern raions of Gomel' Oblast in Belorussia.¹ The conclusion to be drawn from these interviews is that opinion at the center remains unchanged despite what seems to be overwhelming evidence contradicting its position that there have been no further anomalies among the affected population and that deformities occurring among livestock are not attributable to radiation.

Those interviewed were three scientists from the Institute of Clinical Radiology: Oles' A. Pyatak, Honored Scientist of Ukraine and a deputy director of the center;

I. P. Los', head of the laboratory of radioecology; and V. V. Chumak, head of the immunological laboratory. Before commencing the interview, Pyatak provided an informative account of the division of responsibilities between the three institutes that make up the center, which was founded on October 1, 1986, to conduct research on the effects of Chernobyl' and to find methods of treating the victims.

The Institute of Epidemiology and Prophylaxis of Radiation Exposure consists of three departments: the Department of Population Research is concerned with demography; the Registry Department analyzes data on the state of health of all the population that was exposed to radiation, including evacuees, those who still live close to the nuclear plant, and those involved in cleanup operations; the Department of Dosimetry and Radiation Hygiene conducts research on radiation background and tries to ascertain the levels of radiation to which people were exposed, as a guideline to future treatment.

The Institute of Clinical Radiology files data about the state of health of those who were subjected to very high levels of radiation. Together with a nearby children's unit,

¹ Interview at the Institute of Clinical Radiology, Center for Radiation Medicine of the USSR Academy of Medical Sciences, June 15, 1989.

peoples of Siberia and the Far East were supposed to prosper both materially and culturally by advancing from a primitive stage of civilization to the Socialist era. Under socialism, it was argued, the basis for colonial exploitation had been eliminated, and, in consequence, the native peoples of Siberia enjoyed more freedom and opportunities than the oppressed American Indian or Canadian Inuit. This premise—like so many other ideological premises—has been debunked in the press, but it will probably not be easy to convince all Soviet decision-makers or members of the public that the North American solution merits consideration. Anticipating possible cries of outrage from its readers, *Komsomol'skaya pravda* tried to reconcile the existence of such high-level support for reservations and the "un-Socialist" nature of the proposition by stating that the concept of socialism itself is not immune to contradictions and that, at any rate, "we are in favor of the kind of socialism that does not exist in Nori" (a settlement in Tyumen Oblast from which the newspaper's correspondent, F. Sizi, was reporting).

The Komsomol paper mentioned that the Commission for Arctic Affairs has instructed that a legal basis be worked out to pave the way for the creation of the zones and for the expansion of the land-use rights of the indigeneous peoples. Presumably, however, Maslyukov's recommendations will have to be debated and approved by the Supreme Soviet. (It is likely that the government will act to establish a body at the RSFSR level to oversee the affairs of the northern peoples before reaching any final decision on the reservations.) The myriad details that would have to be worked out could create difficulties for any number of economic planners. Would the state farms on which many of the North's native peoples currently work be converted to reservations? Would the inhabitants be able to set their own market prices for meat, skins, furs, and other valuable goods? Whose interests would take precedence in, say, the Evenk Autonomous Okrug, where reindeer flocks are said to be seriously endangered by the construction of the controversial Turukhansk Hydroelectric Station, or in the Khanti-Mansi Autonomous Okrug, where, according to the Nivkh writer Vladimir Sangi, oil industry bureaucrats are evicting natives from their own settlements?⁹

Northern Issues in Congress of People's Deputies and Supreme Soviet

In March, the Evenk writer Alitet Nemtushkin—a proponent of reservations who has frequently raised his voice against the Turukhansk Hydroelectric Station—complained in *Literaturnaya Rossiya* that too many bureaucrats were vying for election to the Congress of People's Deputies in the Evenk national-territorial electoral district.¹⁰ There were no candidates from among the reindeer

herdsmen, which, he feared, meant that the demands of his people would not be heard by the new parliamentary body.

In fact, Nemtushkin was quite mistaken. Several delegates to the Congress made impressive speeches on behalf of the Northern tribes, including I. M. Mongo, who heads the Department for the Affairs of Northern and Arctic Peoples in the Krasnoyarsk Krai Executive Committee (and who was elected in the Evenk national-territorial electoral district). Evdokiya Gaer from Krasnoyarsk and Klara Hallik, an Estonian, also spoke out forcefully. (Incidentally, it is interesting to note that both these women came close to being elected to positions of authority on the Council of Nationalities.¹¹) Hallik argued that

the equivalent to our republican *khozraschet* should be devised for the peoples of the North and East. Over the centuries they have accommodated themselves to the harsh—yet at the same time, fragile and easily wounded—natural environment, and created a unique and careful balance between man and nature. They preserved a vigorous natural environment for modern generations and for the country. To show its gratitude, our state repeated one of European civilization's most shameful acts—the destruction of the American Indians. We repeated this on the eve of the twenty-first century in a country that calls itself Socialist. While there is still a chance, the government should atone for its guilt before the small peoples of the North—and not just of the North.

In recent weeks, the issue of the northern peoples has become closely entwined at the highest level of government with debates on the administrative command methods of the gas and oil industry. The fate of Gennadii Bogomyakov, who was Prime Minister Ryzhkov's initial nominee for the post of minister of the petroleum and gas industry, illustrates the current backlash against the entities that were responsible for the rapacious and uncontrolled development of Siberia. As one of the first victims of the Supreme Soviet's newly gained powers, Bogomyakov's nomination was rejected at a hearing of that body, and he was attacked in *Izvestia*¹² for his management of the oil-rich Tyumen Oblast, where he is first secretary of the Party Oblast Committee.

On July 5, candidates for the post that was to have gone to Bogomyakov were grilled by Supreme Soviet deputies during a session filled with angry accusations. Deputy Nikolai Vorontsov from Moscow not only presented

⁹ *Sovetskaya kul'tura*, June 29, 1989. Sangi heads the Association of Peoples of the North, an organization created this May by leading indigenous writers (TASS, May 19, 1989).

¹⁰ *Literaturnaya Rossiya*, No. 9, 1989.

¹¹ Hallik lost to Georgii Tarazevich, chairman of the Belorussian Supreme Soviet, in the voting for the post of head of the Commission on Nationality Policy and Internationality Relations of the Council of Nationalities; Gaer was beaten by Ukrainian poet Borys Oliynyk in the voting for a deputy chairman's seat on the Council of Nationalities.

¹² *Izvestia*, June 16, 1989.

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clinic closely monitors about 300 people. The Institute has facilities to handle 500 people, although at present, it was asserted, there are 209 people with diseases connected directly with radiation exposure. These are people who were working at the fourth Chernobyl' unit at the time of the explosion or firemen who came to the aid of the first victims.² The remainder are people with diseases unrelated to radiation but who live in the area of control and who are suffering from diseases of the heart, lungs, and kidneys.

The Institute of Experimental Radiology conducts research on the mechanics of radiation exposure upon the individual, especially the effects of low-level radiation. At the institute, scientists are also elaborating methods of treatment for those affected by radiation, and of special importance is research on the effects of radioactive cesium: how it is taken up by the body, how this can be prevented and reversed.

In response to a question about treatment, Pyatak stated that it depends on the level of radiation to which the patient has been exposed. The 209 most seriously affected patients must stay in hospital twice a year for up to one month. The others must attend clinics near where they live at least once a year. If something unusual were discovered—it was made clear that this has not occurred thus far—the patient would be sent to the center in Kiev for further examination. To date, disease in the monitored population is said to be "normal"—i.e., the incidence of disease today is similar to that before April, 1986, among all groups, including newborns, children, pregnant women, and the general adult population.

Pyatak reiterated the familiar figures—namely, that 238 people suffered from acute radiation diseases, of which twenty-eight died in 1986. Of the 238, 85 percent are said to have returned to work, in jobs in which there is no exposure to high levels of radiation. The delayed effects, he continued, are likely to be tumors, blood circulation diseases, and genetic changes. To judge from the effects of radiation on the victims of Hiroshima and Nagasaki, however, such changes are anticipated during a period of ten to fifteen years from the time of exposure.

When a question was posed about the availability of the results of such monitoring in the future, Pyatak cited first the publication of a new book with contributions from virtually all the participants in the international conference on the medical effects of the Chernobyl' disaster, held in Kiev in May, 1988. The book appeared in Kiev in January, 1989.³ Soviet scientists affiliated with the center have also delivered reports at various international conferences, he added, and have cooperated in their research with their

counterparts in the United States. In September, 1989, he added, there will be a high-level visit by representatives from the US National Academy of Sciences, while two international events have already been held at the center under the auspices of the World Health Organization. He concluded that the center is being completely open about the medical consequences of Chernobyl'.

Dr. I. P. Los' responded to some specific questions about the situation in Narodichi. Asked whether the new video entitled "Zapridel'" provides firm evidence that people and livestock in the raion were suffering from the effects of high radiation, he declared that it is difficult to say. "Zapridel'", he stated, is the third film on this topic; the people who make such films, in his view, have been working on popular anxieties. While he agreed that children are suffering from thyroid disorders, he did not think it unusual because the typical large swellings are considered "a normal variant" in certain areas of northern Ukraine and southern Belorussia. They are a consequence, he maintained, of a natural deficiency of iodine. If the situation in Narodichi now were compared with that of thirty or forty years ago, he continued, it would be ascertained that some 30–40 percent of children at that time also had thyroid problems. At that time, however, the Chernobyl' plant did not exist, and thus the illnesses are a result of "natural conditions in that area," he argued.

Dr. Los' was then referred to the recent revelations from Narodichi that radiation levels on the day of the Chernobyl' accident reached three rems per hour, or three times the officially recorded average maximum level in the 30-kilometer zone. He acknowledged this information, which he said was first announced by the raion authorities. He noted that experts recognize the clear relationship between the radiation background and the effects of this radiation, and therefore if it was true that the radiation level three years ago reached three rems per hour, then the contamination of the ground with cesium today should be not the officially reported average of 14 curies per square kilometer, but 140. In his view, more radiation must have remained on the ground. Thus, the current ground level precludes the possibility that the figures quoted by the raion authorities are correct. He emphasized the need to consult the experts on these questions and dismissed the raion authorities as well meaning people who want to put the fears of the population at rest but who lack full understanding of the situation. From Narodichi, he maintained, the center received no data for five days after the accident, but the radiation background could be calculated from data compiled on the fifth day and, furthermore, data monitored at Chernobyl', Kiev, and Prip'yat' made it inconceivable that the radiation level at Narodichi could have been three rems per hour. He admitted that radiation "hotspots" may have been a possible cause of increased readings—caused by a piece of radioactive matter dropped from the wheel of a passing truck, for example—but ultimately discounted the notion because radiation measurements must be taken at a height of one meter, not at ground level.

² While at the institute, I was taken to see two of the first victims of the disaster, an operator called Symonenko and the fireman, V. Pryshchepa. Neither was willing to say much. Pryshchepa did say, however, that he has been unable to work since the accident and "feels sick."

³ *Meditsinskie aspekty avarii na Chernobyl'skoi AES*, A. E. Romanenko (ed.), Kiev, "Zdorov'ya," 1988.

The three interviewed were asked why twelve villages in Narodichi are being evacuated if the situation there is unrelated to radiation. Los' explained at some length that radiation is simply one factor affecting life on earth, along with the physical and the chemical, the levels of which may be normal, elevated but harmless, or dangerous to life. In natural circumstances, the variation between the normal and elevated can be several-fold without having an appreciable effect; people can adjust to the new situation. Thus, in some regions of Argentina and India, the natural radiation background is ten times higher than the world average, but this does not greatly affect human existence there.

Pyatak then continued with the response to the question, commenting on the significance of the psychological situation in areas such as Narodichi. He noted that throughout the world, despite minor fluctuations, there exist standards for radiation exposure and said that the Soviet Union, which relaxed its standards for radiation exposure after the nuclear accident, will tighten them again in 1990. With the reintroduction of the old standard, several villages will have radiation levels above this new norm; and so, taking into account the fears of the population, some villages will be evacuated, he said. There will be a difference between the new official limits and the actual background that "may harm people psychologically," which he described as an otherwise harmless "discrepancy." Radiophobia is having a significant impact on the life of these people, maintained Pyatak.

Largely as a result of the writings of those in the media, he concluded, psychological tension has developed among the population in Narodichi. As doctors, he said that he and his colleagues cannot separate the medical from the psychological problems, especially because psychological tension can be transformed into sickness with physical symptoms, adding that a conference on the subject is planned in cooperation with the World Health Organization. He said on the subject of illnesses with physical symptoms, however, that the incidence of future tumors and other diseases—according to current data—will be too low to determine their cause, given that such diseases develop spontaneously in natural circumstances.

In analyzing the content of this interview, it should be borne in mind that the views of the specialists from the center have become increasingly unpopular in Kiev. In mid-June, at the time of the interview, the two regular spokesmen for the center—B. Bebashko and I. Likhtar'ov—were attending a conference of the USSR Academy of Medical Sciences in Moscow. The comments of the three people interviewed, however, varied little from the current line. On the following day, at an interview with the newspaper *Literaturna Ukraina*, considerable skepticism was expressed about the veracity of scientists at the center. On June 14, the newspaper dispatched two reporters with Geiger counters to the woods around Narodichi, and they measured the radiation level at an

average of 0.8 millirems per hour, or four times higher than the levels recorded by the author in Prip'yat' on the same day.⁴

To the outside observer, it is apparent that, in its anxiety to assuage fears, the Center for Radiation Medicine is trying desperately to find other reasons for problems that appear related to radiation. For example, if 40 percent of children regularly suffer from thyroid disorders (including cancer) and have done so since the 1940s, then why has this situation remained unresolved for several decades? More important, critics such as Yurii Shcherbak have taken photographs of the radiation readings at Narodichi recorded from April 26, 1986, which are today housed in the civil defense headquarters in the city of Zhitomir. For the center's scientists to declare that they have readings only from day five is simply to deny the existing evidence. Further, the argument that radioactive decay is regular and constant is surely to simplify the very complex makeup of the radioisotopes released.

The impression gained therefore was of the center's spokesmen having—to some extent—lost control of the situation by refusing to acknowledge that a real problem exists, not merely in Narodichi but in areas of Belorussia and even western Ukraine. The journalists who have "stirred the pot," while lacking in expertise, have delved deeply into the question largely because of what they perceive as an official cover-up. In particular, Vladimir Kolinko and Andrei Pral'nikov of *Moscow News* have joined a host of Ukrainian critics in bringing the situation in Narodichi to the attention of the world.⁵ It should, however, be perceived as part of a much larger problem—namely, the restriction of official discussion about the effects of Chernobyl' to small, specialized groups, such as the International Atomic Energy Agency or the World Health Organization.

Thus, in the only book published to date (which is cited above), there is not a single contribution either by a critic of nuclear power or by any of those observers who have questioned the official interpretation of Chernobyl'. Even in the center's pleasant garden, trees planted in memory of Chernobyl' victims all bear names with the familiar ring of official observers at home and abroad: Hans Blix, Leonid Il'in, Yurii Izrael', I. Likhtar'ov. Crossing the bridge into Prip'yat' on June 14, 1989, I was informed by a Kombinat official that the radiation level on this particular bridge on April 26, 1986, had been 80 rems per hour. In that case, I inquired, how Leonid Il'in, vice president of the USSR Academy of Medical Sciences, could have declared that Prip'yat' need never have been evacuated? The response was that Il'in must have been referring to readings elsewhere in the city. It is a sorry but telling commentary on the whole official attitude towards the effects of the disaster.

⁴ Interview with *Literaturna Ukraina*, June 16, 1989.

⁵ See, for example, *Moscow News*, June 18, 1989.

(RL 324/89, July 10, 1989)