

ORGANIZATION AND IMPLEMENTATION OF CONTAMINATED WASTE NEUTRALIZATION IN THE UKRAINE – NATIONAL REPORT II

O. Avdeev¹, P. Korchagin²

¹NTTsKOPO of MinChernobyl, Zholtvy Vody

²Department of Decontamination and Waste Management Ukraine, Kiev, Ukraine

GENERAL PREREQUISITES

The fact that contaminated waste is a problem in the Ukraine from the point of view of environmental control and human, and above of all, children's health is beyond doubt. Unquestionable facts have been established which witness a negative effect of contaminated waste on the genetics of man and animals, and which may lead to their degeneration. On the other hand, within the limits of the state no systematic work is being done to solve the problem as a whole.

The supervising bodies of Minpriroda and Minzdrav (Ministry of Nature and Ministry of Public Health) do extensive work in taking stock of contaminated waste, and make requirements more rigid. But the problem of decontamination and elimination of toxic waste remains still open.

The experience in managing radioactive waste in the nuclear industry and the elimination of the consequences of the Chernobyl disaster is an analogue to a scientifically and technically founded approach towards the neutralization and elimination of harmful products.

The situation with toxic waste is often aggravated by the activity of commercial bodies that display a keen interest in those harmful products which yield maximum profit. Galvanowaste containing precious metals may serve as an example.

That is why the solution of the toxic waste elimination and of equipment must become part of the state policy.

MAIN CONCEPT

The most rational way is to combine operation of decontamination and toxic waste elimination with equally complicated and similar operations of radioactive waste decontamination and elimination that are carried out by MinChernobyl in the Ukraine.

The organizational, coordinating, research and technical and production activity was mentioned in a draft of "Basic diagram of technogenic and toxic waste decontamination and elimination in Ukrainian territory".

The first stage carried out by the scientific-technical and coordinating- experimental base is stressed.

In the starting stage the following is carried out:

- optimum cooperation above all, with NAN (National Academy of Sciences) of the Ukraine and with its Institutes, with Minpriroda, Minzdrav, the Statistical Board, departments, organizations, offices and facilities outlined;
- preliminary problems of making an inventory of toxic waste, its territorial distribution and of its quantitative and qualitative composition;
- the initial NIR, OKR, experimental work, scientific-technical information, drafts of "Regulations" for facilities and services;

- the organization of training-exhibitional work;
- the determination of the number, type and territorial distribution of services and facilities for decontamination and elimination of toxic waste and their processing.

In the second stage the main facilities of toxic waste decontamination and elimination, the services ensuring their activity and the neutralization of the contaminated units operate.

It is evident that the "burial-places" for toxic waste must be considered provisional and must be perspectively liquidated.

At present many scientific organizations and enterprises are clearing reservoirs, water lines, the ground from toxic products and industrial sewage. The result is clean water and clean waste.

Toxic waste concentrates in small amounts, and its economically warranted decontamination is often problematic.

The suggested scheme of toxic waste elimination supplements the above mentioned operations.

ORGANIZATION OF THE FIRST (STARTING) STAGE

The implementation of the first stage of toxic waste decontamination and elimination must be organized with due regard for the following factors:

- making maximum use of the experience with similar activities;
- maximum approximation to the most harmful zone of toxic waste;
- the organization of training to help facilities where there are toxic products within short period of time;
- provision of highly qualified specialists, premises and buildings for practical work, studies and the elimination of toxic products;
- establish business connections with leading scientific organizations, institutions and enterprises in the Ukraine dealing with questions of ecology, decontamination and elimination of toxic (especially highly toxic) waste.

In our opinion the scientific and productive base in Zholtvy Vody meets best the above mentioned requirements. Its main activity is organization of the decontamination and elimination of radioactive products, cleaning of contaminated objects. One of few burial places in the Ukraine for toxic waste is in Zholtvy Vody, where there are some large galvanofacilities and some sewage purification works for reprocessing galvanosewage with complete liquidation of the released impurities into the urban sewer system.

The specialists of Zholtvy Vody developed and implemented the system for stopping the release of industrial sewage with toxic waste into the urban sewer system. It was approved