

WASTE TREATMENT AND UTILISATION: CONTEMPORARY PROBLEMS IN THE UKRAINE - NATIONAL REPORT I

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The long and extensive economic development in the Ukraine along with considerable investments and rich resources led to a faster development of productive forces than of investments in technological spheres. This is why we observed significant technical and technological expansion of the home industry (3), uncontrolled cumulation of a large quantity of wastes from production and consumption incl. cumulation of highly toxic waste products (Table 1). Every year in surface depots some 0.9-1.0 million tons of solid waste are stored and the total amount of waste products on the territory of the Ukraine is more than 15 million tons. 1-2 % of the total amount of waste is highly toxic. In absolute figures the total amount in the Donetsk region is about 3.5 million t, in the Dnepropetrovsk region 2.5 million t in the Lugansk region 1.5 million t and in the entire Ukraine 15 million t (4).

Data from industrial waste accumulation sites (5) show that on the territory of the Ukraine there are 2 754 incl. 1 056 solid and 1 698 liquid industrial waste sites. The total capacity of stores is 2 462 m³. From the total of 2 754 stores 39.3 % do not have protective screens, 1 430 rely on the protective properties of natural rocks on the ground of the stores and only 242 are equipped with man-made protective screens. Of 1 803 stores for solid grey waste 1 048 (58 %) do not meet sanitary and technical requirements. Due to leakage of chemical substances from the sites 6 % of the ground water is polluted (4).

Currently cases of disposal of unused raw materials or expired products are becoming more frequent in the Ukraine. This occurred e.g. in Zakarpatskaya, Lvovskaya, Kievskaya, Rovenskaya, Nikolaevskaya and other regions.

It is also reflected in a deterioration of the health status of the population. In 1991 for the first time a decreased birth rate and increased mortality rate was recorded.

From 1989 to 1991 the average life span of males decreased by 1.4 years, of females by 0.9 years, the corresponding figures for rural areas being 1.7 and 1.4. The prevalence of cardiovascular disease and cancer is rising continuously. Thus the number of newly detected cases of cancer increased in 1992, as compared with 1990 by 4.2 (the average annual increase is 2.4). The infant mortality is rising - in 1993 it was 14.4 per 1000 newborns (1992 - 13.9). 25 newborns per 1000 suffer from congenital or hereditary diseases. Beyond doubt, the deterioration of demographic indicators is due to environmental factors.

This calls for changes of the environmental policy and legal provisions. On June 25, 1991 in the Ukraine the law on protection of the environment was passed which gave powers to legislative and executive authorities in the sphere of ecology and created new economic mechanisms regarding the use of natural resources. The law put on an equal footing the activities of all enterprises regardless of their ownership. It extends also the rights of local authorities as regards priorities on their territories, taking into account the ecological situation. According to legislative provisions ecological

standards must be elaborated and defined as well as limits regarding the use of resources, the level of pollutants in the environment, deposition of solid and liquid waste products. It defined also fees for the use of natural resources, pollution of the environment, deposition of wastes and other types of environmental damage.

To implement the above law the Cabinet of the Ministry of the Ukraine defined the list of hazardous materials the import of which to the Ukraine is prohibited by resolution No. 117 of February 22, 1994 on "Regulation of import to the Ukraine and transit of waste materials on its territory". Decisions of the Basel convention on the "Control of transboundary hazardous waste transportation and removal" (March 21-22, 1989) were taken into account as well as the specific conditions in the Ukraine when preparing the list of hazardous materials (some 100 items).

With regard to the increasing risk to human health by waste products, article 25 of the recently adopted law of the Ukraine on Public Health (February 24, 1994) entrusted the authorities of state supervision at the Ukrainian Ministry of Health to issue permissions and to control industry, to supervise storage and transport of materials highly toxic to humans, incl. industrial waste products, products of biotechnology etc.

In its new national policy of environmental protection the Ukraine is aware that it is necessary to elaborate a concept of developing an ecologically safe society, as formulated in the report of the World Commission on environmental questions and development "Our future" (6) and in documents of the European Regional Office "Environmental and public health protection. The plan of actions for Europe" (Helsinki June 20-22, 1994); "Care for the future of Europe, public health and the environment in the European region" (WHO, Copenhagen, 1994). We also realized that it is necessary to define prerequisite conditions for the implementation of this policy incl. an effective economic system, a progressive technological system and a flexible system of administration etc. Unfortunately these prerequisite conditions are still lacking.

It is foreseen that the data assembled during the implementation of the programme "Problems of ecological safety of the Ukraine" will serve as a starting point.

However, the first steps towards the implementation of this concept have been already made. The State Committee of the Ukraine for Science and Technology is financing the programme "Problems of ecological safety of the Ukraine".

The project "Environment and public health" serves as the basis for this programme.

Among important issues to be resolved the following should be mentioned:

- to elaborate criteria of ecological and hygienic regulations for different territories regarding the degree of man-made pollution,
- an automatic analytical system assessing effects of environmental factors on industrial waste products.