

# The pesticide pollution waste problem in the Republic of Latvia

Ilgonis Strauss

Ministry of Environmental Protection and Regional Development of the Republic of Latvia  
25 Peldu St., LV - 1494, Riga, Latvia

Phone: +371 7 026 405, Fax: +371 7 026 558, Email: [strauss@varam.gov.lv](mailto:strauss@varam.gov.lv)

During 1995, when Latvia started to act very actively for the establishment of the National Hazardous Waste Management System, the problem of the pesticide wastes was identified as one of the most serious and urgent hazardous waste problems. More than 600 unsuitable storage sites of obsolete pesticides were found all over the country, which polluted soil and groundwaters and caused a real threat to human health. The total estimated amount of pesticides wastes was approximately 2,000 tonnes, which is a rather huge quantity for such small country as Latvia (64,589 km<sup>2</sup>, total population - 2,500,000). Most of those pesticides were non-owned and orphaned in broken packaging, rusty barrels, etc. and in many cases with spoiled labelling or without any marks at all.

During the period 1997-1999, pesticides from all those sites were identified, repacked, labelled and transferred into two specially constructed interim storage places for hazardous wastes where they are currently waiting for destruction and final disposal. More than 200 types of pesticides were identified and collected, of which DDT (172 tonnes), Hexacyclochlorohexane (lindane) (130 tonnes), Na TCA (265 tonnes) and TMTD (52 tonnes) composed the largest amounts.

According to the Latvian Waste Management Law, the state is responsible for the hazardous waste management in the country and therefore the Ministry of Environmental Protection and Regional Development as responsible parties have organised main activities as solutions of the pesticides waste problem. The hazardous waste management company "BAO" had been contracted to carry out the practical work for the collection of the obsolete pesticides (sampling, repackaging, transportation, disposal into the interim storage places, clean up of the former and emptied storage locations). The Latvian Institute of Organic Synthesis has executed the laboratory identification of unknown substances. It is also necessary to mention that during the collection process of the pesticides wastes, Latvia has been supported by the EU Phare programme. In this framework the management company "BAO" acted together with the Danish company Chemcontrol A/S.

At present, the destruction of these collected wastes is impossible, as Latvia has not yet the necessary facilities, but our country is working very hard to establish a hazardous waste incineration facility and controlled security landfill for final disposal of hazardous waste. It is also planned to destruct and dispose the main part of the collected pesticides wastes.

An international tender for supplying a hazardous waste incineration facility has been announced in 1999. As a result of this tendering the contract has been signed in the end of 2000 with the Danish company Chemcontrol A/S for supplying a semi-mobile hazardous waste incineration facility with incineration capacity of 2,100 - 2,500 tonnes/year and for the participation in the destruction of the collected pesticides wastes. Also the initial structure and size of the controlled security landfill are outlined. The preliminary sites selection for the incineration facility and the security landfill have also already been made and at the present moment the environmental impact assessment (EIA) procedures are in an active stage. The results of the EIA will enable the finalisation of the site selection and the start of the construction works during the year 2002. According to the preliminary plans, the obsolete pesticides problem has to be fully solved before the year 2004.

All the described stocks of pesticide wastes are a heritage from the times of the Soviet system. Nowadays, based on the conditions of market economy, the appearance of new stocks of the obsolete pesticides is not foreseen.

At the present moment, more than 600 unsuitable storage sites (buildings) that were previously mentioned have been cleaned up and abolished. Due to a lack of finances the necessary soil investigations, as well as the *in situ* remediation of the former storage sites have not yet been carried out. It is quite possible that some of the sites will be heavily polluted. We hope that we will be able to carry out the necessary soil investigations and remedial actions at a later stage. Unfortunately, we are not able to solve the soil problem now, so we have to rely on the natural degradation capacity of the pollution.