

Processing of hazardous and radioactive waste

Has the state managed to organise the treatment of hazardous and radioactive waste?

Report of the National Audit Office to the Riigikogu, Tallinn, 8 June 2015

Summary of audit results

The National Audit Office audited whether the state has organised the treatment of hazardous and radioactive waste according to requirements, and thereby prevented any threat to the environment and people's health. The National Audit Office also checked whether the state has a comprehensive and correct view of the generation and treatment of hazardous and radioactive waste. Special attention was given to the hazardous waste collection centres established by the state, which the state as the owner must manage prudently.

264,000 tons of hazardous waste and 82 tons of radioactive waste was generated in Estonia in 2013. The artificial radioactive waste deposited at the Paldiski intermediate radioactive waste management facility also need to be finally rendered. Treatment of hazardous and radioactive waste in a manner that does not comply with requirements and such waste entering the environment leads to the pollution of ground and surface water, and endangers living organisms and people's health. Radioactive waste must be treated particularly carefully, as its impact on the environment and health can be unpredictable and manifest itself over a long period of time.

The state must guarantee that hazardous and radioactive waste is treated safely, and that the associated costs are covered by the waste producer, not by the state or future generations. Since the 1990s the state has invested *ca* 10 million euros in the hazardous waste collection centres and 30 million euros in the intermediate radioactive waste management facility in its ownership. It's therefore important that the centres serve their purpose in the treatment of waste and guaranteeing a safer environment.

The National Audit Office is of the opinion that the Ministry of the Environment must give more attention to the treatment of hazardous waste, as the goal of reducing the generation and increasing the recovery of hazardous waste has not been achieved, the activity of the ministry's divisions in managing waste handlers has been unsuccessful, and the state's hazardous waste reports contain significant amounts of incorrect data. The state has also failed to guarantee an opportunity for final depositing of hazardous waste, as the state-owned Vaivara hazardous waste treatment centre has not been successfully managed and its operations have been suspended since autumn 2012.

Key observations of the National Audit Office:

■ The state has failed to achieve the goals set in the National Waste Management Plan for 2008-2013, i.e. to reduce the generation of hazardous waste, increase their recovery and eliminate residual pollution. The hazardous waste treatment trend was the opposite of the one established in the plan: the generated quantities increased, but recovery remained at the same level as in 2008. Depositing has decreased, but the reason for this is that the only hazardous waste disposal site at Vaivara has not accepted any waste since autumn 2012, and the waste that should have been deposited has been recognised as recovered waste. The goal of eliminating hazardous liquid waste

from residual pollution sites has also not been fully achieved: 4,700 m³ of 10,000 m³ has still not been remediated.

■ The state's waste reports do not recognise hazardous waste generation and treatment data correctly. The quantities recovered and disposed in the period under review have not been as big as indicated in reports. For example, the scale of recovery recognised in the state's report for 2013 is larger than the quantity of untreated hazardous waste by a fifth, and twice as big as the real quantity at the end of the year. Waste that has been prepared for recovery (e.g. sorted), but which has not been finally treated, has been shown as recovered waste in hazardous waste reports. During the audit, it was found that the balances at the end and beginning of the year indicated in the state's waste report do not tally with each other (the difference was thousands of tons), which suggests that data upon the acceptance, transfer and treatment of waste are inaccurate. A third of old oil, asbestos and end-of-life ships are never treated, which means that the generation of waste according to the state's reports is smaller by their quantity.

■ The Ministry of the Environment has not guaranteed the development of information systems concerning hazardous waste. The waste reporting information system, the environmental permits information system and the register of hazardous waste waybills have not been structured in a manner that would allow the Environmental Board and the Environmental Inspectorate to efficiently control the submitted data and the activities of waste producers and handlers. Finding errors and inconsistencies in reports is therefore difficult, and it affects the reliability of the state's data on hazardous waste.

■ There are significant omissions in the activities of the Environmental Board and the Environmental Inspectorate in managing hazardous waste handlers. When granting hazardous waste treatment licences, the Environmental Board has made several decisions that were not sufficiently justified or that do not give the reassurance that environmental and health safety is guaranteed. For example, companies have not been required to monitor the substances characteristic of their activities, which would make it possible to assess the company's impact on the surrounding environment. It is permitted to use hazardous waste as a by-product (sell it as a product) without making sure that it complies with environmental requirements. The Environmental Inspectorate has failed to complete proceedings in justified cases or imposed fines that are too lenient.

■ The state has failed to guarantee the possibility to hand in waste and its treatment according to requirements at all of the hazardous waste collection centres it owns. Although the state has spent *ca* ten million euros on the establishment and operation of three hazardous waste collection centres, only the centre in Tartu has managed to guarantee purposeful treatment over the years. Only 25-35% of the actual capacity of Vaivara and Tallinn centres has been used.

The Vaivara centre has not been kept consistently in operation and it has been disused since autumn 2012. The ditch around the territory has become polluted as a result of the centre's activities. The state has sold the Tallinn and Tartu centres by now.

■ The state has failed to decide whether and how the radioactive waste that will be generated and has already been generated in Estonia will be finally treated. The Ministry of the Environment has not decided whether to establish a new intermediate or final storage site for artificial radioactive waste; no policy for treatment of natural radioactive waste has been developed; and the approval of the action plan for radioactive waste treatment is delayed.

■ The Environmental Board has not considered whether to require financial warranty for the treatment of radioactive waste, or justified why no warranty is required. There are currently no possibilities for treatment of natural radioactive waste in Estonia. 255 tons of such waste had been generated by 2013 and another 70 tons more of this may be generated every year. Requiring a warranty would give the state an additional guarantee that radioactive waste will be finally treated and the state does not have to find the money for treating such waste itself if the waste producers are unable to perform their obligations.

Recommendations of the National Audit Office

■ The Minister of the Environment should establish clear and measurable goals and target levels for hazardous waste in the National Waste Management Plan for 2014-2020 to increase recovery and reduce disposal.

■ The Minister of the Environment should decide which hazardous waste treatment services the Vaivara hazardous waste treatment centre should provide and how it will be guaranteed.

■ The Ministry of the Environment should develop the information systems related to hazardous waste (waste reporting information system, environmental permits information system, register of hazardous waste waybills) in such a manner that they would make it possible to check the correctness of data more efficiently and give the input for more successful supervision.

■ The Ministry of the Environment should, immediately after the completion of the preliminary study of final treatment of radioactive waste in 2016, decide whether to establish a final storage site for radioactive waste in Estonia or consider cooperation with other countries that have possibilities for final storage of such waste. It should also establish solutions for treatment of NORM-waste with specific responsible persons and resources. Legislation should be amended for this purpose if necessary.

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