

Which waste does this concern?

What is radioactive waste?

Waste is a by-product of every human activity. Thus waste is also created by the production of electricity in nuclear power plants, when nuclear installations are dismantled, and by the use of radioactive substances in research, medicine and industry. A part of that waste is radioactive. The major part of the radioactive waste looks like domestic and industrial waste. It consists of all sorts of used materials such as protective clothing, tools and demolition material from installations that are no longer used. There is one major difference between radioactive waste and other waste: radioactive waste contains substances that emit ionizing radiation. This radiation can be dangerous for people and the environment.



source : Belgoprocess



An integrated project for the **surface disposal**
in Dessel of the Belgian low and
medium-level short-lived waste

Together we can make it possible

Which type of radioactive waste does this concern?

There are various types of radioactive waste. This project is only concerned with the disposal of category A waste. This is processed waste that contains radioactive elements in activity concentrations and with a half-life that are sufficiently small for the waste to qualify for surface disposal. This category includes low and medium-level waste with a short half-life but can also contain minimal quantities of radioactive elements with long half-lives.

Why is there a need for a long-term solution?

Radioactivity diminishes with time. Even so, small quantities of long-lived elements in this waste remain radioactive for a period that exceeds 200 to 300 years. With surface disposal as a long-term solution the waste is contained and isolated from people and the environment for the period of time the waste needs to lose the major part of its radioactivity by the decay of short-lived elements. Thus safety is guaranteed and future generations do not have to be actively concerned about this waste.



source : Belgoprocess

What is happening **today** with the Belgian **low and medium-level short-lived waste**?

ONDRAF/NIRAS is responsible for the management of all the radioactive waste on Belgian territory. Safety always comes first.

Management of the waste

The management of the waste is based on two principles: on the one hand, the containment of the radioactive substances, so that they cannot escape into the environment, on the other hand the shielding of the ionizing radiation. It includes all the steps that the waste goes through from its creation by the producer up to and including the temporary storage in special buildings, awaiting a long-term solution. To this end, ONDRAF/NIRAS has drawn up requirements which the waste must satisfy and it checks whether these requirements are met. The daily management of radioactive waste today is completely safe and under control.



source : Belgoprocess



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Management at the source: prevention, recycling, sorting, identification

The producers of radioactive waste apply a preventive policy. This means that they limit their waste production as much as possible, in particular by recycling and recovering material. As for the selective collection of domestic waste, the producers must also sort their waste. They must also clearly state the contents.

Processing

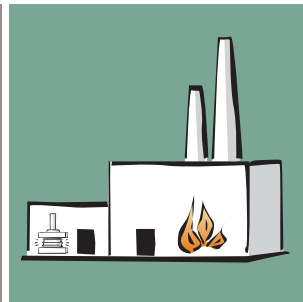
The major part of the radioactive waste is processed at the installations of Belgoprocess, the industrial subsidiary company of ONDRAF/NIRAS in Dessel. Processing aims to reduce the volume and to concentrate and contain the radioactivity in drums. The result is a stable end product that can be stored safely.

Temporary storage

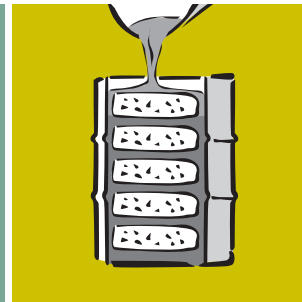
The drums with the processed waste are stored in special buildings on the Belgoprocess site. The buildings have been designed in such a way that they protect people and the environment against possible harmful effects. Although the storage of radioactive waste is safe in the short and medium term, this is only a temporary solution whereas the disposal installation can develop in the long term into a definitive solution.



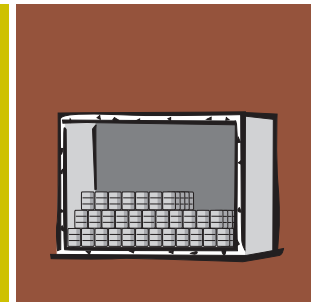
Limiting, sorting,
identifying



Reducing the volume



Stabilizing and
containing



Storage



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