

Mandate for the Austrian Board for Radioactive Waste Management

Preamble

In September 2018, the Austrian Federal Government approved the “National Programme for the Management of Radioactive Waste” (National Programme) according to § 36b Radiation Protection Act, Federal Law Gazette I No 227/1969, which was replaced by § 142 Radiation Protection Act 2020, Federal Law Gazette I No 50/2020 as a result of the revision of the radiation protection legislation.

The National Programme sets out the current principles, the existing legal framework and the practice of the management of radioactive waste in Austria and gives an overview of the currently existing and expected future quantities of radioactive waste. It describes how radioactive waste is currently managed as well as future steps including possible disposal options, taking into account the envisaged waste inventory. In addition, the National Programme contains provisions for the establishment of a “working group” by the Federal Government that will deal with issues and tasks in accordance with the principle of safe radioactive waste management in a collaborative and transparent manner and put forward recommendations for further steps.

This working group is now being established as the “Austrian Board for Radioactive Waste Management” (Advisory Board) with the aim of drawing up proposals for the final disposal of radioactive waste in Austria, taking into account technical, economic and social aspects. Its responsibilities will include developing possible solutions as part of studies and workshops but also in cooperation with national and international institutions and experts. According to the National Programme, the Advisory Board will be required to engage in the following activities:

- Consultation on changes to the legal framework conditions and the financial framework for the disposal of radioactive waste,
- Consultation over a period with the most important milestones,

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- Monitoring of the development of the waste inventory at Nuclear Engineering Seibersdorf (NES), including assessments of the periods of time within which activity values allowing release could be achieved,
- Monitoring of the activities of other countries with a comparable waste inventory,
- Providing information on European and international cooperation concerning radioactive waste,
- Discussion on mode and requirements for the participation and information of the public as well as for ensuring transparency and participation,
- Initiation and monitoring of research and development activities which should lead to an assessment of the feasibility of new technologies and concepts, waste minimisation, etc.,
- Development of a conceptual project for the waste disposal facility, but also for any other relevant elements, e.g. transport, supervision etc.,
- Development of criteria for the selection of disposal options, above all in respect of safety aspects,
- Consultation on the requirements to be placed upon the future operator of a disposal facility and ensuring that sufficient numbers of qualified staff are available,
- Consultation on the concept for decommissioning of unneeded facilities at NES,
- Monitoring the implementation and updating of the National Waste Management Programme.

This mandate instructs the Board to prepare on the following tasks documents for submission to the Austrian Federal Government within three years:

Task 1: Radioactive waste in Austria: Examination of the status quo

The aim is to collect and collate information and data on radioactive waste management; to discuss the inventory of radioactive waste in Austria, as well as to evaluate the studies on the Federal Government's previous activities with respect to final disposal. As part of this, plans are to provide a tangible overview of the existing situation. The data collected during the initial assessment describes the starting point in detail and provides the basis for the work of the Austrian Board for Radioactive Waste Management.

The initial assessment shall have the following scope:

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- the development (history) of the Austrian Federal Government's previous final disposal activities,
- evaluation of the actual status by an in-depth stocktaking of the radioactive waste in Austria,
- the amount and activity of radioactive waste to be expected in future

The quality of the recommendations presented by the Advisory Board depends on the completeness and quality of the data collected. Therefore, evaluation of the status quo is a key initial step in its work. To this end, plans are to evaluate all the available studies on radioactive waste management in Austria that have been compiled over the past years. This is to investigate the deficiencies of these studies. While future decisions and recommendations of the Advisory Board will not be based on the findings of earlier studies, these studies do represent a crucial factor in terms of the knowledge of the Board.

This inventory provides a basis for selecting a specific type of final repository. Knowledge of the detailed waste inventory is crucial to this. Research pertaining to the inventory should include the following information:

- radionuclides and their activity;
- amount, composition, chemical and physical composition as well as possible chemical, physical and other risks;
- standardised classification (waste types) of radioactive waste;
- source and origin of the waste NES has collected and intermediately stored so far, including its producers;
- estimate of future waste amounts, taking into consideration potential radioactive legacy waste, radioactive sources in circulation as well as the waste expected to accumulate from the dismantling of installations and facilities;
- estimates of the period of time until a part of the waste may reach clearance values and can then be managed as conventional waste;
- evaluation of the waste that NES cannot condition with the treatment methods available;
- inventory of the spent fuel to be returned to the USA.

Task 2: Analysis of the options for final disposal

The aim is to provide an overview of all the possible options for the final disposal of radioactive waste in the form of a single document, including the option of cooperation with other countries, with their respective requirements, strengths, weaknesses, opportunities and risks, as well as an initial cost estimate.

The final disposal options should describe the possibilities based on the radioactive waste inventory established in Task 1. As part of this, the respective strengths, weaknesses, opportunities and risks related to the respective option are to be analysed, taking into account technical, economic and social aspects. In accordance with the principles of the Austrian waste management policy, and § 141 para. 2 Radiation Protection Act 2020 (StrSchG 2020), the analysis should also take into account the options for cooperation in waste treatment and management with other Member States of the European Union or states having ratified the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, Federal Law Gazette III No 169/2001.

The report should contain at least the following information:

- description of the potential final disposal options;
- technical foundations and necessary requisites (geology, hydrology, geophysics...) for these options;
- what type of waste is appropriate for what option;
- examination of possible cooperation with other countries with regard to radioactive waste management;
- evaluation in accordance with social, societal, ecological and economic aspects;
- an initial cost estimate.

Based on the analysis of the individual options and the inventory in Task 1, the Advisory Board must select one option or several options for the various types of waste as the basis for the timetable and a road map to prepare in Task 4.

Task 3: Framework for public participation

The aim is to develop a framework for public participation (including transboundary measures) en route to a final repository in Austria, taking into account technical, economic and social aspects. This concept is to include recommendations on how and when the public will be informed, involved and included in decisions.

Transparency, information and public participation are prerequisites for the social acceptance of processes and decisions on issues with far-reaching implications, such as radioactive waste management. The public should have access to relevant information and be able to participate effectively in the decision-making.

Contents of the concept for information and participation of the public

This concept is to create a framework for the information of the public and public participation (including transboundary measures). The participation process itself should not be rigidly defined but designed to enable learning from experience. The participation process should be regularly adjusted to new developments, issues, decisions and phases.

The concept is to define during what process phase, during what activities and to what extent the public can participate. The aim is to determine how the views, opinions, questions and ideas expressed during public participation are incorporated into the decision-making process.

The following questions should be dealt with in detail:

- How does the public (also on an international level) get access to relevant information, e.g. to ongoing or upcoming activities?
- How can the public express their concerns, questions, opinions and ideas? How can citizens participate?
- Who is responsible for the provision of information? Should experts be involved in the process?
- What international, national/regional and local forms of citizen participation are expedient in this matter?

Task 4: Development of a timetable for radioactive waste management

The aim is to define a timetable and a road map for radioactive waste management in Austria. This draft should include, where possible, relevant intermediate stages ('milestones'), key performance indicators, and clear timelines for achieving those intermediate stages.

A timetable of milestones/intermediate steps is a key element in the process leading to the final disposal of Austrian radioactive waste.

Where possible, the key performance indicators (KPIs) required in accordance with Directive 2011/70/Euratom should be included into the draft timeline.

When drafting the timetable and road map with the associated milestones/intermediate stages, it should be considered, that the draft is highly dependent on (future) socio-political processes, on scientific and technical as well as specific requirements of the possible site of the final repository site (geology, hydrology, ...) and therefore can only be an estimate.

Conclusion

The final report of the Austrian Board for Radioactive Waste Management must be based on the perusal of the currently available documents and information, expert opinions and studies as well as the analyses.