Report on the Third Meeting on 26 and 27 January 2022

The Austrian Board for Radioactive Waste Management ("Advisory Board" for short)-met for its third meeting on 26 and 27 January 2022. The goal of this meeting was to share the Committees' work, to deepen everyone's understanding of the mandate, to identify knowledge gaps and to initiate studies. The year 2021 was reflected upon and an outlook for the year 2022 was given. Due to the Covid 19 situation, the third meeting of the Advisory Board took place online.

Background

Based on "The National Programme for the Management of Radioactive Waste" (2018), the Advisory Board develops a basis for decisions and recommendations for the Federal Government regarding the safe disposal of low- and intermediate-level radioactive waste accumulated in Austria. Radioactive waste is generated in Austria through applications in medicine, research, industry and through the dismantling of facilities that are no longer required (decommissioning).

The mandate of the Austrian Board for Radioactive Waste Management defines its tasks. It is valid for three years and ends in June 2024. The four tasks according to the mandate are:

1. Radioactive Waste in Austria: Survey of the Status Quo

The aim is to survey and collect 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 in this survey describes the starting point in detail and provides the basis for the work of the Austrian Board for Radioactive Waste Management.

2. Analysis of the Options for Final Disposal

The aim is to provide an overview of all possible options for the final disposal of radioactive waste in the form of a single document. It should include the option of cooperation with

other countries and outline the requirements, strengths, weaknesses, opportunities, and risks, as well as an initial cost estimate for each option.

3. Framework for Public Participation

The aim is to develop a framework for the population to participate (including cross-border measures) during the process of establishing a final repository for radioactive waste in Austria. The concept should consider technical, economic, and social aspects. Moreover, it should contain recommendations on how and when the population should be informed, involved, and included in the decision-making process.

4. Development of a Timetable for the Disposal of Radioactive Waste

The aim is to define a timetable and roadmap for the disposal of radioactive waste accumulated in Austria. This draft should include, where possible, relevant intermediate stages ("milestones"), key performance indicators and precise timelines for reaching these stages.

The recommendations worked out by the Advisory Board on the individual mandate items are forwarded to the Federal Government and serve as a basis for decisions on future steps.

The Austrian Board for Radioactive Waste Management includes representatives of the Federal States and Governments, scientists, NGOs, and from the public. The Advisory Board is chaired by Silvia Benda-Kahri from the Environment Agency Austria. The members of the Advisory Board may change in the context of future mandates depending on the tasks at hand when the current mandate ends in June 2024.

Review

At the second meeting of the Advisory Board in October 2021, the three Committees mentioned below were formed. Their interim results were the focus of the third meeting of the Advisory Board.

The Committee on "Radioactive Waste in Austria - Focus on Quantities" is revising and specifying the current inventory of radioactive waste and generating a forecast of the radioactive waste that will be produced by 2045. The Committee collects and evaluates other data necessary for the characterisation of the radioactive waste inventory (e.g., volume, radiological, chemical, and physical characterisation, and origin).

The Committee on "Pathway to the Evaluation of Options for Final Disposal" works on the mandate items "Analysis of the Options for Final Disposal" and "Development of a Timetable for Radioactive Waste Management". The Committee should find a way to evaluate these options. In addition, it is to propose to the Advisory Board a structure for the content of the questionnaire and define the pre-requisites for the required reports and studies. Flowcharts are to be drawn up showing which decisions are made by which people and who is involved.

The Committee on the "Framework for Public Participation" continues and expands on the work of the ad hoc Committee on public participation, public relations and communication regarding the Advisory Board's work that was established in the first Advisory Board meeting. In addition, the expectations regarding the participatory process should be clarified and the basis for future work should be established.

Results of the third Meeting:

The results of the third meeting of the Austrian Board for Radioactive Waste Management are presented on the basis of the mandate items.

Item 1: Radioactive Waste in Austria: Survey of the Status Quo

After the report by the Committee on "Radioactive Waste in Austria – Focus on Quantities" on the inventory of radioactive waste in Austria and a possible supplementary survey in the form of a questionnaire, the specific design of the inventory was discussed and a decision on the next steps was taken. The discussion about an additional survey in the form of a questionnaire will be resumed after the inventory is available.

Results

The Advisory Board has decided to have an inventory of radioactive waste in Austria drawn up as a basis for the Advisory Board and recommends contacting Nuclear Engineering Seibersdorf GmbH for this purpose. The inventory should contain the following information:

1. Number of standard and special containers that are currently present and expected by 2045 based on defined criteria

- 2. Overview of the current and expected total inventory by 2045
- 3. Estimate of the amount of raw waste accumulated per year and the resulting conditioned barrels
- 4. Additional estimate of the volume based on common international repository containers

Item 2: Analysis of the Options for the Final Disposal and Item 4: Development of a Timetable for the Disposal of Radioactive Waste

The Committee on the "Pathway to the Evaluation of Options for the Final Disposal" expressed the need for basic information as an essential requirement for future recommendations to the Federal Government. A resolution proposal identified the following needs:

- 1. EU legal obligations: what are the requirements?
- 2. Final repository or continuation of interim storage facilities?
- 3. Example of the structure of a selection process (including best practice; IAEA rules) for the technology and the site of a repository (which technical decisions in which steps?)
- 4. Phases of a participation process (who is involved in which steps and in what way?)
- 5. Decay behaviour of radioactivity inventory and lifetime of the repository
- 6. Formulation of safety criteria for the overall concept of a disposal site and storage technology
- 7. Limits for radiation exposure and calculation methods for the dispersion of radioactive substances
- 8. State of the art repository technologies advantages and disadvantages in relation to the location
- 9. Design of site selection criteria
- 10. Possibilities for multinational disposal

Results

The Advisory Board accepts the resolution proposed by the Committee on "Pathway to the Evaluation of Options for the Final Disposal". On the basis of the decision, the

Secretariat is asked to present a proposal to concretise and specify the reports in cooperation with the responsible ministries.

Annex to the decision:

With regard to item 4 "Development of a Timetable for the Disposal of Radioactive Waste", the Committee on the "Framework for Public Participation" will contact the Secretariat with further clarifications and coordinate these with the Committee on the "Pathway to the Evaluation of Options for the Final Disposal".

Item 3: Framework for Public Participation

The Committee on the "Framework for Public Participation" presented a theoretical framework to be used for the conception of public participation. In the interest of transparency, proposals on the future development of the website as well as future communication and public relations measures were presented and discussed. In addition, the members of the Advisory Board discussed the proposal to commission a basic study on the level of knowledge and understanding of the public on the subject of radioactive waste in Austria. The organisation of discussion groups in order to achieve a better understanding of the public's assessments was discussed as an additional option. Both options would create an evidence-based starting point for designing a participation concept.

Results:

In the next step, the Committee will develop a design for a study on the level of the public's knowledge and/or discussion groups on this topic, as well as a proposal for possible events.

The next meeting of the Advisory Board will be held on 11 and 12 May 2022.

Participants:

Advisory Board

Roman Beyerknecht (Nuclear Engineering Seibersdorf)

Philipp Bohatschek (Federal Ministry of Finance)

Ulrike Felt (University of Vienna, Department of Science and Technology Studies)

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