IAEA
International Atomic Energy Agency

Technical Meeting on

Disposal Options for Smaller Radioactive Waste Inventories

IAEA Headquarters
Vienna, Austria

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Information Sheet

Introduction

Every Member State that uses nuclear technology generates radioactive waste. That waste requires careful management to protect human health and the environment now and in the future. The proper disposal of such waste offers a safe, secure and permanent solution. Waste disposal involves placing the waste in an appropriate facility without the intention of retrieval. The disposal facility will provide passive safety after its closure, meaning that no active measures are required, as opposed to a storage facility.

Nowadays many surface disposal facilities for radioactive waste are in operation while underground disposal facilities are being developed and planned. Most of those existing or planned facilities are developed for large waste inventories. For a country that does not have an extensive nuclear programme and that generates only a relatively limited amount of waste, the disposal of that inventory can be challenging, as adopting a disposal solution developed for large inventories might turn out to be economically unfeasible.

The International Atomic Energy Agency (IAEA) is developing a report to present and evaluate disposal options for small waste inventories. Examples of small radioactive waste inventories are:

- Radioactive waste from the limited use of nuclear research and development facilities or research reactors (no nuclear power plants or fuel cycle facilities);
- Waste from nuclear applications in industry and medicine; and

- Disused sealed radioactive sources.

The report focuses on the underground disposal of intermediate level waste and high level waste. Very low level waste and low level waste can be disposed of in (near) surface disposal facilities, which generally offer an affordable disposal solution, even if the waste inventory is small. Intermediate level waste and high level waste however require disposal at depths of tens to hundreds of metres, which generally makes those disposal facilities much more expensive.

Predisposal activities such as waste processing, conditioning and storage are outside the scope of this report. Those activities are, to some extent, covered in ongoing IAEA work on the management of institutional waste.

Purpose

The purpose of the event is to present a draft report on potential approaches for the effective disposal of small quantities of radioactive waste, and to obtain feedback on the perceived applicability of these approaches to a set of national programmes dealing with a wide range of small inventories.

More specifically, the event aims to:

- Present and discuss the draft report "Disposal Options for Smaller Radioactive Waste Inventories";
- Gather case examples of small waste inventories from Member States and identify what small waste inventories entail in different Member States; and
- Evaluate the suitability of the disposal concepts put forward in the draft report with respect to the inventories presented by Member States.

Participants will be required to provide a summary of their radioactive waste inventory. This will be used to gain a better understanding of what those "small inventories" comprise. They will also be used to test and evaluate the disposal concepts presented in the draft report.

Participants will also be asked to provide feedback on the draft report: does it provide the information that is needed to meet its intended goal, and is it sufficiently clear, well written and structured? A well-prepared draft of the report will be sent to participants in advance of the event.

Target Audience

The event is aimed at Member States that have smaller nuclear programmes and are seeking to develop options for disposing of the associated waste. The disposal options presented may also be of interest to Member States with large inventories, particularly those that have waste with specific properties making it unsuitable for co-disposal in other facilities, such as graphite. A smaller-scale disposal concept could offer a solution for such waste streams.

Expected Outputs

The expected outcome of the event is to gain:

1. Member States' feedback on the draft report;
2. A better understanding of what "small inventories" comprise; and
3. An evaluation of the disposal options presented in the draft report.

Working Language

English.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page: http://www-pub.iaea.org/iaeaevents/GeneralInfo/Guide/VIC.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.