



10 April 2026

Dr Gillian Hirth  
Chief Executive Officer  
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## **RADIATION HEALTH AND SAFETY ADVISORY COUNCIL (RHSAC) – Minerals Reprocessing and Radium Waste for Theranostics**

Dear Dr Hirth,

At its November 2024 meeting, the Radiation Health and Safety Advisory Council (Council) discussed the re-processing of mining residue streams as a potential source of radionuclides for theranostics. A working group (WG) was formed with the purpose of gaining a broader understanding of the topic and to provide advice for Council discussion.

Council subsequently received a number of presentations from external parties involved in investigating the reclamation and use of “recycled” radionuclides.

A number of key areas were identified that Council would like to highlight. These were:

- The reuse of radionuclides from waste or residue streams is a very practical example of the application of sustainable development and therefore should be encouraged for the benefit of all Australians.
- The large scale reclamation of naturally occurring radionuclides from mining and processing waste streams is technically possible, although there are many practical challenges.
- The International Atomic Energy Agency (IAEA) Radium-226 Initiative aims to recycle Ra-226 sources from around the world for beneficial medical uses. Council noted that there has been contributions by some Australian entities and that there may be benefits in a coordinated approach that also brings benefits to Australians.

- The Australian Radioactive Waste Agency (ARWA) may play an important role in understanding inventories of radionuclides in wastes and residues.
- Theranostics is one of a growing number of activities involving the recycling and use of naturally occurring radionuclides, which brings possible regulatory implications.
- It was noted that there are benefits of taking a national approach to any new technology.

Given that this is a growing and emerging field that covers both radiation protection and the beneficial uses of radiation, Council requests that ARPANSA maintain a watching brief, and provide an update to Council in one year, or sooner if developments occur in the meantime.

Kind regards



**Jane Canestra**

**Chair**

Radiation Health and Safety Advisory Council