



## COUNCIL ADVICE TO THE CEO ON AN INDICATOR OF SUSTAINABLE DEVELOPMENT FOR RADIOACTIVE WASTE MANAGEMENT

At its meeting of 28 November 2003, Council discussed an Indicator of Sustainable Development for Radioactive Waste Management (ISD-RW) that had been developed by the IAEA.

The ISD-RW provides a measure of both the current status of radioactive waste management at any point in time and the progress made over time towards the overall sustainability of radioactive waste management. It is a dimensionless indicator ranging from 0 (least sustainable condition) to 100 (most sustainable condition) in increments depending on progress towards safe storage or disposal.

The ISD-RW is based on two factors that are applied to each of the waste classes used in a country. The two factors are a '**Form Factor**', which indicates the suitability of waste for storage or its endpoint, and an '**Endpoint Factor**' which indicates the status of waste relative to its endpoint. **Sustainability** is the point at which the amount of radioactive waste awaiting its endpoint is not increasing, the waste is in the final form required for its endpoint and it is being safely stored.

As there is currently an international debate about the endpoint for radioactive waste management, both disposal and indefinite storage (to an internationally accepted standard) are currently recognised as an "**endpoint**" for the purposes of the indicator. However it should be noted that a conclusion of the IAEA's International Conference on Issues and Trends in Radioactive Waste Management held in December 2002 was that, in the long term, surface storage is unsustainable because of the need to maintain institutional control to guarantee the safety of the storage facility. A recent position paper on the safety and sustainability of long-term storage by a group of international experts (IAEA 2003a) confirmed this view.

An overview of the ISD-RW is given in the report *Radioactive Waste Management Profiles - a Compilation of Data from the Net Enabled Waste Management Database (NEWMB) No 5* (IAEA 2003b) which can be read on-line.

Council concluded that, while the definition of "sustainability" could be improved, the ISD-RW was a good approach that Australia could use to measure its progress in managing waste that is suitable for near-surface disposal (eg at the proposed national repository) and waste unsuitable for near-surface disposal (Category S waste for which the national store is planned). In particular, the flow charts and questions following the flow charts were very helpful in assessing progress against the ISD-RW.

Council recommends that the CEO consider promoting the use of the ISD-RW with relevant agencies and organisations, to assess Australia's progress in managing its radioactive waste.

**References:**

IAEA 2003a. *The Long Term Storage of Radioactive Waste: Safety and Sustainability. A position paper of international experts.* IAEA – LTS-RW  
[http://www-pub.iaea.org/MTCD/publications/PDF/LTS-RW\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/LTS-RW_web.pdf)

IAEA 2003b. *Radioactive Waste Management Profiles - a Compilation of Data from the Net Enabled Waste Management Database (NEWMB) No 5*  
<http://www-pub.iaea.org/MTCD/publications/PDF/rwmp-5/RWMP-V5.pdf>.