

**Senate Standing Committee on Economics**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Department of Industry, Science, Energy and Resources  
National Radioactive Waste Management Amendment (Site Specification, Community Fund and  
Other Measures) Bill 2020 [Provisions]

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**AGENCY/DEPARTMENT:** DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES

**TOPIC:** Delay and decay facilities

**REFERENCE:** Written Question – Senate Standing Committee on Economics

**QUESTION No.: 6**

Further to previous, please find below Questions on Notice from the Senate Economics Legislation Committee:

1. Mr Sweeney from the Australian Conservation Foundation made the claim that of the approximate 100 sites around Australia, majority will still be used as “delay and decay” facilities and thus is a reason as to why a single site is not needed. Is this correct?
2. What will happen to “delay and decay” facilities?
3. The other claim made was the fact that spent fuel to create nuclear medicines would go to Kimba with less “security, less tenure, less response capacity, less of everything than where they currently are at ANSTO”. Is this a correct statement?

**ANSWER**

- 1-2. The National Radioactive Waste Management Facility (NRWMF) is a long-term depository solution designed to consolidate existing radioactive waste holdings currently stored in a number of sites across Australia. These existing sites are not designed for long-term storage or the permanent disposal of radioactive waste.

Some facilities may need to maintain continued temporary storage capacity, for example for radioactive waste with short half-lives held in hospitals and research facilities. This does not negate the need for a single waste management facility. For example, cobalt and radium sources required for radiotherapy have long half-lives, 5.27 and 1600 years respectively. They will need to be managed appropriately over the longer term in fit-for-purpose facilities, rather than be left at hospitals and research facilities. These waste types are found at sites across Australia. Waste that comes from very low-activity sources or more modern nuclear medicines with very short half-lives can decay relatively quickly, and therefore may not be required to be moved to the NRWMF. The NRWMF provides a waste management option for waste holders who have radioactive waste with longer decay periods and/or higher activity levels.

3. Both the *National Radioactive Waste Management Act 2012* and the *National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020* prohibit the facility accepting spent fuel. Australian spent nuclear fuel from the operation of ANSTO’s OPAL multipurpose research reactor and spent fuel from the now shutdown HIFAR reactor is and has previously been sent to France for reprocessing. The

waste by-products are returned to Australia as vitrified (solid glass) waste in specialised dual-purpose transport and storage casks. These casks are designed to safely withstand a range of adverse conditions and to protect workers, members of the public and the environment.

As has been made clear in the public statements of the CEO of ARPANSA, the current dual-purpose transport and storage cask is safely managed at ANSTO's Lucas Heights campus, and ANSTO has established a range of safety, security, and emergency protocols to support the organisation's activities. Similar arrangements will be made for storage the NRWMF, which will be subject to the same nuclear security, safeguards, and safety regulatory requirements as ANSTO, including in relation to licences issued by ARPANSA.