

Nuclear medicines produced in the Sutherland Shire help thousands of Australians everyday



ANSTO is able to produce these potentially life-saving nuclear medicines because of the OPAL research reactor which is one of the world's best multi-purpose research reactors.

Aside from producing the nuclear medicines used in hospitals today, the OPAL research reactor is enabling vital research into new medicines to diagnose or treat diseases such as Alzheimer's and Parkinson's Disease and melanoma. OPAL is also enabling scientists to develop new ways to produce food to help prevent bowel cancers and even new types of antibiotics.

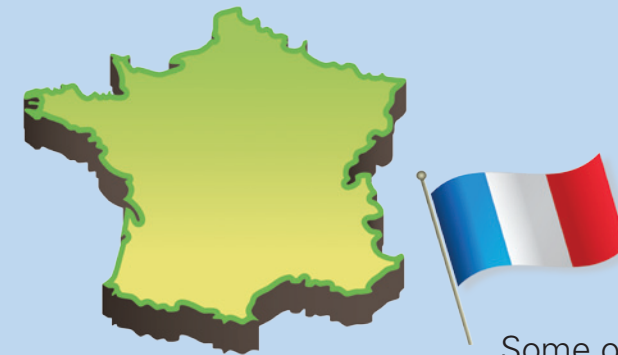
But the capabilities of the OPAL research reactor don't stop there. It is helping scientists to understand climate change, how batteries may one day be able to replace petrol fuel for the transportation industry, and other exciting new discoveries that will benefit generations of Australians to come.

One in two Australians is likely to need a nuclear medicine procedure at some point during their lifetime. Nuclear medicine helps with the diagnosis and treatment of numerous heart, liver, bone and kidney conditions and cancers.

If you have had a CT, PET or SPECT scan, it is likely the nuclear medicines used in your procedure came from the Australian Nuclear Science and Technology Organisation (ANSTO) at Lucas Heights. In fact ANSTO supplies 85 per cent of all Australia's nuclear medicines, which are distributed weekly to hospitals and health practices around Australia.



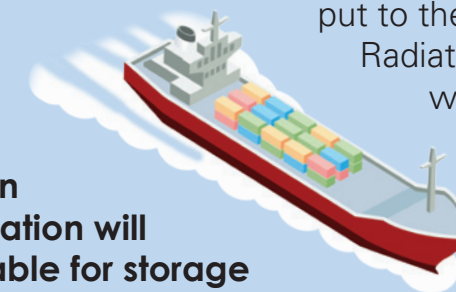
Along with the significant benefits of nuclear medicine and research comes Australia's responsibility to safely deal with our nuclear waste



Some of the nuclear medicines we benefit from today were developed thanks to the now retired nuclear research reactor HIFAR. Between 1955 and 2007, HIFAR, also produced millions of doses of nuclear medicine that benefited a whole generation of Australians.

Intermediate level waste from the fuel rods used to drive the HIFAR research reactor is currently being re-processed in France. The reprocessing operation will make the returning waste suitable for storage in a national radioactive waste management facility. Under an international agreement established in the '90's, Australia must receive the re-processed waste by the end of 2015.

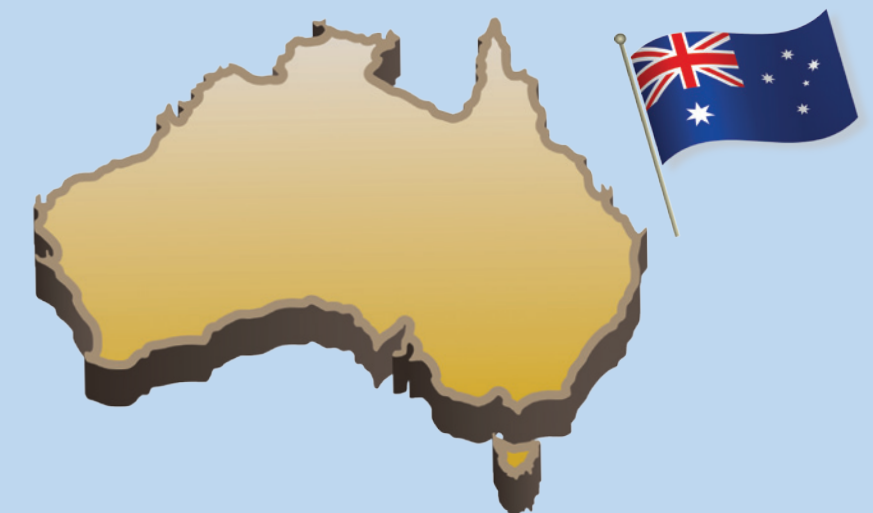
On 4 April 2012, the *National Radioactive Waste Management Act 2012* came into effect. The Act will pave the way for Australia to have a purpose built, national radioactive waste management facility. The national facility will not be completed in time to receive the waste returning in 2015, so the Australian Government has asked ANSTO to temporarily store the waste on behalf of all Australians until the new national facility is completed. The national facility is expected to be opened before the end of the decade.



ANSTO is one of Australia's most significant public research organisations and there is no scope for using ANSTO as the location for a national waste management facility.

ANSTO has 50 years expertise in safely managing nuclear material and by-products, and is therefore able to safely manage the returning waste until a national facility is sited and constructed. Plans for the proposed Lucas Heights interim store will be put to the independent nuclear regulator, Australian Radiation Protection and Nuclear Safety Agency, who will ensure the safety of the plans and undertake a public consultation process in mid-2012.

The waste that is returning is approximately one third of the size of a regular shipping container. It will be immobilised in glass, shielded in lead and placed into a specially designed container with walls more than 20cm thick. People can safely stand next to the container without the need for any protective gear.



For more information go to www.managingnuclearwaste.org.au



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Nuclear-based science benefiting all Australians