

MEDIA RELEASE

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Safe export of fuel that enabled a decade of nuclear research, medicine

The Australian Nuclear Science and Technology Organisation (ANSTO) today confirmed that the 10th routine export of spent nuclear fuel is underway, after a multi-agency operation last night.

In a single operation, material that enabled a decade of cutting-edge research and 5.5 million doses of nuclear medicine for Australian patients was trucked from Sydney's Lucas Heights to Port Kembla.

Nuclear medicine is used for diagnosis and treatment of a variety of heart, lung, and muscular skeletal conditions as well as cancers.

This fuel also enabled environmental and health research, and irradiation of 45 tonnes of silicon a year for use in high powered electronic devices like solar farms, hybrid cars and wind farms.

The spent fuel is now being shipped overseas in state-of-the-art cask for reprocessing, which will involve:

- Extraction many kilograms of uranium and plutonium for recycling in energy and research programs only (in line with the relevant government-level treaties); and
- Immobilisation of the remaining non-recoverable waste in glass, in a process called vitrification, which ensures safe and stable behaviour.

We can confirm that the recycled materials could power approximately 110,000 households over the course of one year.

“The fact is that Australia’s nuclear industry saves lives, strongly contributes to our industry and enables a state-of-the-art research program that makes a real difference,” Hef Griffiths, ANSTO Chief Nuclear Officer, said.

“Alongside the many benefits enabled by our state-of-the-art OPAL nuclear reactor comes a responsibility to safely manage its by-products.

“Spent fuel export is a process that’s been undertaken ten times now in Australia and thousands of times around the world, safely and without incident, thanks to the dedication of the people involved and highly-engineered containers used.

“These casks are state-of-the-art and purpose-engineered to safely transport this type of material without risk to people or the environment.

“The valuable and useful materials will be recycled, and the remainder will be treated so that it is suitable for eventual storage back in Australia.”

Pamela Naidoo-Ameglio is the Group Executive of ANSTO’s Nuclear Operations Division. She thanked the hundreds of people who were involved in ensuring a safe operation.

“ANSTO would like to thank the State and Federal security agencies who greatly assisted with project planning, and helped us ensure that this transport was completed safely,” said Ms Naidoo-Ameglio.

“As with nine previous export shipments, this operation was conducted in collaboration with agencies including state and federal police, road and maritime authorities, and regulators.

“Over the course of more than a year, this multiagency, multidisciplinary team worked across all levels of Government to achieve the safe outcome that we are confirming today.”

In many years, after useful materials are recycled into overseas civil power and research programs and reprocessing is complete, the remaining vitrified waste will return to Australia for storage.

Due to security requirements, ANSTO is not currently in a position to comment on the route that the ship will take to France.

Media contact: Phil McCall 0438 619 987