

Changes to document RRRP-7200-EDEAN-005-Rev0

(a) Section 5.1.3 (page 8/15)

The paragraph:

This strategy was confirmed in 1997 by the Government for the management of spent fuel from both HIFAR and the replacement reactor. ANSTO has arrangements with the US Department of Energy for the repatriation of US-origin spent fuel (no waste will be returned to Australia), and a contract with the French company COGEMA for the reprocessing of the remainder of the spent HIFAR fuel. The contract with COGEMA also covers the reprocessing of spent fuel from the replacement reactor. It is a contractual requirement that waste arising from reprocessing by COGEMA will meet the international criteria for long-lived intermediate level waste. Spent Fuel Management Practice

is amended to read as follows:

This strategy was confirmed in 1997 by the Government for the management of spent fuel from both HIFAR and the replacement reactor. ANSTO has arrangements with the US Department of Energy for the repatriation of US-origin spent fuel (no waste will be returned to Australia), and a contract with the French company COGEMA for the reprocessing of spent fuel from HIFAR and the replacement reactor. Within these contractual arrangements, COGEMA¹, in late 2004, has formally confirmed its agreement to accept all silicide fuel irradiated in the replacement reactor facility during the period prior to the availability of a new processable fuel duly qualified in Australia. It is a contractual requirement that waste arising from reprocessing by COGEMA will meet the international criteria for long-lived intermediate level waste.

(b) Section 5.1.4 (page 9/15)

The paragraphs:

Fuel manufactured from US-origin enriched uranium arising from the operation of a research reactor can be returned to the US under the US DOE *Foreign Research Reactor Spent Nuclear Fuel Acceptance Program (FRR-SNF)*. This program commenced in 1996 and was to accept spent fuel irradiated up to May 2006 and transported to the US before May 2009. In 2004, the United States Secretary of Energy announced that the timescale for this program is to be extended. To this end, the US Department of Energy is currently preparing a supplemental analysis required by the U.S. National Environmental Policy Act. The US Secretary of Energy has written to the Australian Minister for Science advising that he has instructed his Department to include the issue of management of spent fuel from the replacement reactor in this analysis.

The fuel for the initial operations of the reactor facility is of US-origin and is U-Si fuel, a type accepted under the FRR-SNF program. The preferred option for spent fuel from the initial reactor facility operations will be return to the US. In the case of spent fuel accepted by the US, there will be no return of waste to Australia.

¹ Letter from COGEMA, reference BU T 04/0612/PA/NK, to ANSTO dated December 6, 2004.

The first alternative spent fuel disposition route is reprocessing by COGEMA. The ANSTO contract with COGEMA for spent fuel reprocessing includes U-Mo fuel but normally excludes U-Si fuel. However, ANSTO has made arrangements with COGEMA for the acceptance of U-Si spent fuel. This is additional to ANSTO's intention that the long-term disposition route for Reactor Facility spent fuel will be reprocessing by COGEMA. An agreement with France at inter-governmental level has been concluded to support these arrangements.

are amended to read as follows:

Fuel manufactured from US-origin enriched uranium arising from the operation of a research reactor can be returned to the US under the US DOE foreign research reactor Spent Nuclear Fuel Acceptance Program (FRR-SNF). This program commenced in 1996 and, as a result of a decision by the US Department of Energy announced on 1 December 2004², will accept spent fuel irradiated up to May 2016 and transported to the US before May 2019. The decision also specifically includes spent fuel from the reactor facility within the scope of the program. The additional elements accepted by the DOE under the extension to the FRR-SNF cover the projected spent fuel arisings from the replacement reactor facility during the ten-year extension period to 2016.

The fuel for the initial operation of the reactor facility is of US origin and is a U-Si fuel, a type accepted under the FRR-SNF program. The spent silicide-type fuel from the reactor facility operations until May 2016 or the conversion to U-Mo fuel, whichever is the earlier, will be returned to the US as part of this program. There will be no return of waste to Australia.

The disposition route for spent U-Mo fuel, and for any U-Si fuel used after May 2016 (in the unlikely event that such an event occurs), is reprocessing by COGEMA. The ANSTO contract with COGEMA for spent fuel reprocessing includes U-Mo fuel but normally excludes U-Si fuel. However, ANSTO has made arrangements with COGEMA for the acceptance of U-Si spent fuel. An agreement with France at inter-governmental level has been concluded to support these arrangements.

(c) Section 5.1.4 (page 10/15)

The paragraph:

In summary, ANSTO's preferred option is that the silicide-type fuel from initial reactor facility operations will be returned to the US under the FRR-SNF program. After the initial operations, and probably after the reactor is converted to operate with U-Mo fuel, the spent fuel will be returned to COGEMA for reprocessing. Should the US FRR-SF program not be extended, arrangements are in place with COGEMA to process the silicide-type fuel. The Argentine option is contractually available as a further fall-back position.

is amended to read as follows:

In summary, ANSTO's spent fuel management strategy is that the fuel from the period of operation using uranium silicide fuel will be returned to the US under the FRR-SNF program. After that period, the spent fuel will be sent to COGEMA for reprocessing. In the unlikely event that uranium molybdenum fuel has not been qualified by 2016,

² Revision of the Record of Decision (ROD) for a Nuclear Weapons Nonproliferation Policy Concerning Foreign Research Reactor Spent Nuclear Fuel: <http://www.eh.doe.gov/nepa/rods/2004/69901.pdf> .

arrangements are in place with COGEMA to process the silicide-type fuel. The Argentine option is contractually available as a further fall-back position.

(d) Section 5.3 (page 11/15)

The paragraphs:

The process announced by the Minister on 11 August 2000, and further detailed by Ministers in announcements of 8 February 2001 and 14 July 2004, for finding a site for the national store for long-lived intermediate level waste generated by Commonwealth agencies, including ANSTO, ensures that the necessary facilities will be available in ample time to accommodate the small volume of wastes from the reprocessing of research reactor spent fuel from the reactor facility to be returned to Australia. For the preferred option of return of spent fuel under the US FRR-SNF program, no waste would be returned to Australia. In this case, the national store would not be needed to accommodate the return of wastes from the processing of spent fuel from the reactor facility until after the long-term disposition route to COGEMA is adopted. Waste from this spent fuel processing would be expected to return to Australia after 2025.

In the case that the US option is not available and the alternative option of reprocessing by COGEMA is adopted for the initial spent fuel, the earliest date waste would be expected to be returned to Australia is 2018.

are amended to read as follows:

The process announced by the Minister on 11 August 2000, and further detailed by Ministers in announcements of 8 February 2001 and 14 July 2004, for finding a site for the national store for long-lived intermediate level waste generated by Commonwealth agencies, including ANSTO, ensures that the necessary facilities will be available in ample time to accommodate the small volume of wastes from the reprocessing of research reactor spent fuel from the reactor facility to be returned to Australia. In the case of return of spent fuel under the US FRR-SNF program, no waste will be returned to Australia. The national store will therefore not be needed to accommodate the return of wastes from the processing of spent fuel from the reactor facility until after the long-term disposition route to COGEMA is adopted. Waste from this spent fuel processing would be expected to return to Australia after 2025.