

Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry Portfolio
Budget Estimates Hearing 2014-15
2-3 June 2014

AGENCY/DEPARTMENT: Australian Nuclear Science & Technology Organisation

TOPIC: Spent Fuel Assemblies to the US

REFERENCE: Question on Notice (Hansard, 2 June 2014, page 9)

QUESTION No.: BI-1

Senator LUDLAM: Okay. What is the timing of the first proposed shipment to the United States? Can you give us some ideas of how many shipments are planned, what number of fuel assemblies are involved and, by the end of that forward estimates period or that \$45 million worth of expenditure, has everything been transferred to the United States apart from the current fuel inventory of the reactor?

Dr Paterson: I will take the details on notice so that we can provide you a full account, but at present we are anticipating two shipments. The detailed dates of those shipments are not absolutely finalised, but they would be completed by the end of 2019.

Senator LUDLAM: So the forward estimates would envisage two shipments. It is \$22½ million per shipment of spent fuel.

Dr Paterson: That is correct, although that is in some ways an oversimplification because there are planning and other arrangements.

Senator LUDLAM: Sure. We have not done one of these from OPAL before, have we?

Dr Paterson: We have certainly shipped spent fuel around the world from the HIFAR days, but this will be the first one from OPAL and will deal with the fuel from initiation of operations through until May 2016.

Senator LUDLAM: Thank you. If you could on notice provide for us your indicative time tables and what kind of volumes are involved. Where does it go in the United States, and what is the plan for management there?

Dr Paterson: It is returned to the specialised facilities in the United States. We will provide the details on notice.

Senator LUDLAM: You do not know at the table where it is going? Is it one of the US reprocessing plants or just for dry storage?

Dr Paterson: I imagine that those details will be in their hands. I do not have it to hand at the moment. We will provide it on notice.

ANSWER

At this early stage in the planning process, it is anticipated that the first shipment of spent fuel assemblies to the United States of America for permanent and safe disposal in accordance with the US Department of Energy (US DOE) Foreign Research Reactor Spent Nuclear Fuel Acceptance (FRRSNFA) programme will take place in the second half of 2016. The second shipment is planned for the second half of 2018.

At this stage, it is anticipated that each shipment will contain 112 fuel assemblies used by Australia's OPAL research reactor in the production of lifesaving nuclear medicines from its commencement of operation in 2006 right through to May 2016. Fuel assemblies removed from the reactor core after this date are ineligible for the FRRSNFA programme.

In accordance with the FRRSNFA program, the fuel assemblies will be transported to the Savannah River site, near Aiken, in South Carolina. ANSTO understands that the fuel will be stored in an underwater storage pool known as the "L-Basin" used for the return of fuel from foreign research reactors.