

Mr Kim Wilkie MP
Member of the Joint Standing Committees on Treaties

Dear Kim

Review of a Nuclear Material Transfer with China: Thorium waste response

I referred your query regarding thorium waste to scientist Charles (Rusty) Holden in the US. We can put you in touch with him should you require direct contact.

His reply to our queries was:

"The waste thorium makes when it is substituted for uranium-238 does not include significant amounts of plutonium, curium, neptunium and americium. These are the transuranics. Subnational organisations would like to amass plutonium for explosive purposes. Ask the person who asserts that thorium and uranium make the same waste about transuranics. If the person says that thorium makes as much plutonium as uranium-238, the person is ignorant and ill prepared to advise anyone. For fission products, this is the set of isotopes produced from fission of uranium-233 produced from thorium-232 is different that that produced by uranium-235 and plutonium 239 and 241. I direct your readers to the 16th Edition of Nulides and Isotopes published by Knolls Atomic Power Laboratory Inc. The IAEA papers on the website also show that thorium fuels produce much less transuranics than the fuels containing u-238. I also enclose some papers not yet on my website. Best Rusty Holden"

I have forwarded a copy of this response to Mr Gregory Copley, FDI Director, who briefed Kim Beazley on the FDI *Australian Energy Options* report in October 2005.

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