

Europe-US deal to curb highly enriched uranium use

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Three of the world's top suppliers of medical isotopes on Monday announced plans to work toward phasing out the use of highly enriched uranium in the production process under a deal with the United States.

The effort would see France, Belgium, and the Netherlands work toward converting medical isotope production to the use of low-enriched uranium from the current reliance on the more dangerous highly-enriched uranium (HEU) by 2015.

It was unveiled on the sidelines of a [nuclear security](#) summit in South Korea, an effort first launched in 2010 by US President [Barack Obama](#) to secure supplies of radioactive material that could potentially be used by terrorists.

"Simply put, we are reducing the availability of highly enriched uranium, a weapons-grade material, and (this) reduces the chances of the material flowing to the wrong hands," US [Energy Secretary Steven Chu](#) said at a press conference.

Under the arrangement, the United States would supply the three countries with the HEU they need during the conversion process to ensure supplies of the vital isotopes remain unbroken.

[Medical isotopes](#) are used to diagnose cancers and other diseases in 30 million procedures every year.

But world production is focused on eight research reactors, most of them in Europe, and all but one of which is four decades old or more.

Aside from age-related reactor concerns, worries have grown that the reliance on HEU for isotope production poses a potential nuclear terror threat should the material be obtained by terrorists.

HEU can be used to make an [atomic bomb](#).

Of the eight reactors, the "big five" in Belgium, Canada, France, the Netherlands and South Africa, are responsible for as much as 95 percent of [global supply](#).

The deal aims for conversion by 2015, pending various regulatory approvals, but no details were given on any hard targets.

The reactors produce "irradiated targets", which then go to five main producers of the most commonly used isotope, known as Mo-99, which decays into a radiopharmaceutical known as Tc-99, used once every second in procedures worldwide.

World leaders including Obama on Monday began the two-day summit in the South Korean capital Seoul aimed at curbing the threat of nuclear terrorism.

Leaders or top officials from 53 countries, plus Interpol and three other international organisations, are gathering to assess developments since Obama hosted the first such summit in Washington two years ago.

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