

## Cleaner fuel for nuclear power stations

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A cleaner and safer fuel for nuclear power stations will be available within two years, raising the prospect of the Government approving plans to build the next generation of power plants.

Scientists claim it could help overcome many of the objections to nuclear energy by producing less radioactive waste. Unlike the current fuel, which harnesses the decay of enriched uranium into the plutonium used in nuclear weapons, the new material uses the heavy metal thorium which does not produce plutonium.

It is hoped this will allay fears over the security of nuclear waste should it fall into the wrong hands.

The waste from the thorium fuel is also less radioactive, meaning it will be safer and easier to dispose of.

Researchers at Imperial College London are now working with American company Thorium Power to develop ways of exploiting thorium fuel in Britain.

It is already being tested in an experimental reactor at Russia's nuclear research centre, the Kurchatov Institute, in Moscow. Seth Grae, of Thorium Power, said the company planned to use their fuel in a commercial Russian reactor by 2010.

It comes as the Government prepares to publish a White Paper and an accompanying consultation next month on plans to build new nuclear power plants. The Government insists nuclear energy will play a key role in helping the country meet its carbon emission targets and increasing electricity needs over the coming decades.

Scientists hope that using thorium fuel will help to soften public opposition by presenting a safer alternative to uranium-powered stations, whose waste can remain dangerously radioactive for tens of thousands of years.

But experts warn that despite its lower radioactivity, the waste from thorium can still take several hundred years to decay to safe levels.