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PRESS RELEASE

DEFRA WELCOMES REDUCTION OF RADIOACTIVE DISCHARGES FROM SELLAFIELD

Defra welcomes today's announcements by BNFL and the Environment Agency (EA) and the Health and Safety Executive's Nuclear Installations Inspectorate (NII) that a plant-scale trial of Tetraphenylphosphonium Bromide (TPP) to reduce discharges of radioactive technetium-99 (Tc-99) into the sea has been successful. The EA and NII have agreed that TPP can now be used routinely to reduce Tc-99 discharges.

The level of Tc-99 discharges arising from the reprocessing of spent Magnox fuel (the major source of Tc-99 discharges on the Sellafield site) will be reduced by over 95%, leading to discharges from the whole site being reduced by 90%. The level of discharge of Tc-99 from the whole site is expected to be less than 10 Terabequerels per year from now on. The EA and NII will, in collaboration with BNFL and Nirex, review experience with TPP use during future discharge campaigns, with a view to early introduction of a 10 TBq/year limit.

The plant-scale trial which was carried out by BNFL at the end of last year was the latest step in a process initiated by the Government in 1998, involving BNFL, the Environment Agency, the Nuclear Installations Inspectorate and Nirex, to address concerns about Tc-99 discharge levels.

Commenting on the success of the trial, Elliot Morley, Minister for the Environment, said:

“Although there is no evidence that the discharge of Tc-99 into the sea at its current discharge limit is harmful to man or the environment, it has prompted some concern, particularly in Scandinavia, because Tc-99 can be detected at very low levels in coastal waters and in certain shellfish and seaweed.

“I am therefore very pleased that the collective efforts of BNFL, the Environment Agency, the Nuclear Installations Inspectorate and Nirex have lead to the successful reduction of discharges some two years ahead of schedule”

In 2000, the discharge limit for Tc-99 was reduced by 55% (200 TBq/year down to 90 TBq/year). Changes implemented by BNFL in July of last year, following the

Environment Agency's review of Tc-99 discharges, would have led to the discharge level being reduced to just 5% of the 1999 level (down to 10 TBq/year) in 2006. The success of the TPP trial means that the level of Tc-99 discharges can be reduced very significantly two years earlier than expected.

Tc-99 is very water-soluble and, when discharged to sea, tends to become widely distributed. The abatement techniques introduced at Sellafield during the past year, including the use of TPP, mean that Tc-99, which would otherwise have been discharged to sea, will be converted into a solid form suitable for storage on land and eventual long-term disposal.

Notes to editors

1. Terabecquerels are a measure of the amount of a radioactive material. It describes the rate at which radioactive transformations occur. 1Bq = 1 radioactive transformation per second. 1 TBq = 10^{12} (one million million) radioactive transformations per second.
2. The half-life of Tc-99 is 213,000 years.
3. TPP is a chemical used to convert Tc-99 into a solid form.
4. The Environment Agency's Decision Document on Tc-99 discharges was published in September 2001, following a review and public consultation.