

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.9
TO BE ANSWERED ON 22.11.2012

SAFE DISPOSAL OF VITRIFIED HIGH LEVEL RADIO-ACTIVE WASTE

9. SHRI C.M. RAMESH :

Will the PRIME MINISTER be pleased to state:

- (a) whether Government has conceived any safe disposal of vitrified high level radioactive waste in the country; and
- (b) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS
AND PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY) :

- (a)&(b) Yes, sir. Under the existing practice, a three step approach is followed in our country consistent with the practice followed world over for management of high level radioactive liquid waste. These are:

Waste is first vitrified and converted into an inert solid matrix in the form of sodium borosilicate glass. The vitrified waste is taken in a stainless steel canister which in turn, is placed in a stainless steel over-pack. The over-pack is again encased in another stainless steel casing and stored in an engineered facility.

As a second step, such solidified waste package is stored under surveillance in a natural circulation driven air-cooled engineered facility for a period of about 50 years.

The final step, comprises sending this cooled vitrified waste package to a deep geological repository at a depth of about 600-800 meters to isolate the radioactivity from the environment.
