

## CHAPTER I : DEPARTMENT OF ATOMIC ENERGY

### 1.1 Non-installation of incinerator system

**Bhabha Atomic Research Centre procured different components of an incinerator system at a cost of Rs. 52.78 lakh. The system had not been installed even after nine years defeating the objective of introducing efficient ways of nuclear waste management.**

The Directorate of Purchase and Stores (DPS) of the Department of Atomic Energy (DAE) placed orders for supply of incinerator system, hepa filters, heat exchangers, bag houses and draft cooling towers with accessories alongwith other supporting items between May 1991 and December 1996 on different firms at a total cost of Rs. 38.25 lakh excluding taxes and duties. The incinerator system was required by Bhabha Atomic Research Centre (BARC), a research and development unit of DAE, for installation at its Waste Management Division at Tarapur for waste management at 'Away From Reactor' (AFR) storage facility for improvement in management of low level radioactive waste and minimising the disposal cost.

BARC received all the items, except heat exchanger and bag houses valued at Rs. 8.75 lakh at site between May 1993 and July 1997. Due to failure of the supplier to supply heat exchanger and bag houses, BARC could not commission the incinerator system and stored a few items at AFR building and the balance in open yard due to non-availability of storage facility. BARC procured the heat exchanger and bag houses subsequently in March 1999 from another supplier at a cost of Rs. 23.28 lakh and installed the major items like incinerator structure, bag houses, heat exchanger etc. by October 2000.

At the time of integration and commissioning of the system, BARC decided to review the lay out of the system to facilitate an integrated approach for the facility and constituted a task force in June 2002 to review the status of the job and to expedite completion. Though the task force was to submit its report by August 2002, it submitted the report only in July 2005 suggesting certain modifications in respect of material of construction, area for segregation and packaging of the waste. However, the system/equipment valued at Rs. 52.78 lakh procured between May 1993 and March 1999, with warranty already expired, were yet to be commissioned and put to intended use. The system was expected to be commissioned by March 2007. The delay in commissioning of the system led to disposal of radioactive waste by the existing method without volume reduction and requiring costly trench.

DAE stated in October 2005 that out of various elements of the system procured, most have been tested, installed and were in satisfactory condition. It further stated that the technology for development of the proposed incinerator system was not readily available and thus, it took considerable time for development of the incinerator and procurement of heat exchanger and bag houses. It was added that non-availability of the incinerator had not affected the existing programmes.

The reply of DAE is not tenable as DAE should have considered all pros and cons of the system before ordering for the equipment. Further, it was seen that no job had been assigned for development of the technology related to the equipment. Moreover, the warranty of various components of the system had already expired leaving no scope for their free repair/replacement if any defect or damage was found. The reply that the delay had not affected the existing programmes was also not acceptable, as BARC had to dispose of the low level nuclear waste by using the existing method requiring huge area and costly trench.

Thus, the objective of introducing efficient ways of low-level nuclear waste management by minimum disposal cost had not been achieved even after nine years and expenditure of Rs. 52.78 lakh.