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2010 UK Radioactive Waste Inventory

The Nuclear Decommissioning Authority (NDA) and Department of Energy and Climate Change (DECC) published the latest UK Radioactive Waste Inventory on 22 March 2011.

The UK Radioactive Waste Inventory describes the stocks of radioactive waste and radioactive materials held in the UK at 1 April 2010. It also predicts wastes and materials that could arise from the operation and decommissioning of current facilities in the future. It is updated every three years and the table below sets out the high level summary of waste volumes held, and predicted, as of 1 April 2010:

Waste Type	2010 Total volume, cubic metres	2007 Total Volume, cubic metres
Low level waste (LLW)	4,400,000	3,200,000
Intermediate Level Waste (ILW)	290,000	240,000
High Level Waste (HLW)	1,000	1,100
Total	4,700,000	3,400,000

The total volume of radioactive waste that exists today or is forecast over the next century or so from existing facilities is about 4.7 million cubic metres. About 94% (about 4.4 million cubic metres) of radioactive waste falls into the LLW category. Of this volume, 4 million cubic metres are from the dismantling and demolition of nuclear facilities and the clearance of contaminated ground at nuclear sites. About 6% (about 290,000 cubic metres) of radioactive waste is in the ILW category, and less than 0.1% (1,000 cubic metres) is in the HLW category. Although the volume of HLW is relatively small, it contains about 95% of all radioactivity in radioactive wastes whilst LLW contains less than 0.01% of the total radioactivity. These percentage values will change gradually over time as radioactivity decays.

Changes from 2007 inventory

When compared with the previous 2007 Inventory, there is an additional 1,300,000 cubic metres of radioactive waste in the 2010 Inventory. The volume of LLW has increased by about 1,200,000 cubic metres, the volume of ILW has increased by about 51,000 cubic metres and the volume of HLW is largely unchanged. Changes are quite common given the long period over which future arisings are forecast and ongoing improvements in waste characterisation techniques. The main reason for the increased volumes has been a reassessment of waste that will arise in the future from Sellafield, and most of this waste falls into the Very Low Level Waste sub-category of LLW. As with previous inventories, the 2010 Inventory indicates that Sellafield produces, and will produce, the majority of the waste inventory.

Inventory for geological disposal

DECC and NDA are also working on a further report, using the 2010 Inventory data to produce an update to the waste volumes for geological disposal that were originally published in the 2008 MRWS White Paper. This will be published in summer 2011.