# Case Study: EDF Desiccant Treatment From AGR Power Stations





Working collaboratively with EDF since 2009, Tradebe Inutec developed a method for the treatment and disposal to the LLWR of spent ILW desiccant utilising a washing and encapsulation process



## The Customer Challenge

The process of producing electricity at EDF power stations involves the use of desiccants which become tritium activated. As a result, they are exchanged regularly on a planned maintenance basis. On-site radioactive waste storage space is limited so EDF needed to develop a cost-effective and sustainable process and supply chain that would facilitate regulated treatment of the activated desiccant - rendering it suitable for off-site disposal at a suitable repository or other innovative final treatment.

#### The Tradebe Inutec Solution

Working collaboratively, EDF and Tradebe Inutec developed a desiccant washing and encapsulation process, producing a waste package which is transportable under UK regulations and meets the waste acceptance criteria of the LLWR. Following successful trials, a processing plant was installed at Tradebe Inutec's Winfrith facility which is still in operation.

The EDF and Tradebe team have worked closely to innovate the process towards incineration at Fawley, a solution that meets the changing UK regulatory framework, best practice and sustainability objectives. This will result in future arisings being diverted away from the LLWR in line with the UK waste hierarchy.

### **Value to Customers**

Since installation of the treatment plant at our Winfrith Facility, Tradebe Inutec has successfully washed and disposed of more than 300m<sup>3</sup> of encapsulated desiccant to the LLWR. Following this successful collaboration, EDF are now utilising a direct incineration route for desiccant, that recently saw desiccant from Dungeness B incinerated at the Tradebe Fawley site.

This has resulted in three key wins for EDF, freeing up significant storage space, the realisation of internally focused KPI's and meeting the aspirations of the UK regulator in safely and compliantly disposing of radioactive waste.









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