

DIAMOND to tackle UK nuclear waste issues

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The long-term problem of how to manage and dispose of Britain's nuclear waste is to be tackled by a UK consortium headed by the University of Leeds.

Over the past 60 years, Britain has established 20 nuclear sites and facilities, as part of its civil nuclear programme. These are now managed by the Nuclear Decommissioning Authority (NDA). Current estimates of the cost of decommissioning the sites and handling waste management and disposal stand at around £70 billion.

The DIAMOND (Decommissioning, Immobilisation And Management of Nuclear wastes for Disposal) consortium will draw on expertise from the universities of Manchester, Sheffield, Imperial College, Loughborough, University College London and Leeds, in a four-year programme which has received £4.2 million funding from the Engineering and Physical Sciences Research Council (EPSRC).

Areas covered by the programme will include legacy wastes, site termination, contaminant migration and materials design and performance. A key strength of the consortium's approach is that it will bring together skills and knowledge from a diverse range of academic disciplines, including radiochemistry, waste immobilisation, materials performance and mathematical modelling.

Researchers will also work closely with the NDA and stakeholders in the nuclear industry to make sure research addresses relevant issues. At the same time, researchers will get the opportunity to experience 'real life'

challenges in industry.

Professor Simon Biggs, from the School of Process, Environmental and Materials Engineering at the University of Leeds, is leading the consortium. He said:

“By challenging the status quo and seeking new and innovative solutions we believe this programme of research will generate real savings on the treatment and disposal of legacy waste, site decommissioning and remediation.”

A key priority is to address a growing EU-wide skills gap in the nuclear research field, through training the next generation of nuclear waste specialists. The consortium is looking for industrial partners and is also offering PhD and postdoctoral research opportunities at all member institutions.

Dr Jim Young, DIAMOND programme manager, said:

“The value of the consortium’s approach is that projects will be co-supervised by academics with expertise in different fields of knowledge, which will enhance creativity and increase the potential for a step change technology breakthrough.”

Source: University of Leeds

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