

Dounreay funds PhD for legacy particles research

News story

DSRL is funding research through the University of the Highlands and Islands for a critical PhD project to model the behaviour of legacy radioactive particles in the marine environment at Dounreay.



An important part of the work to close down Dounreay is to address the legacy of the radioactive particles that wash up on the beaches next to the site.

Nuclear fuel was reprocessed at the site for almost 40 years. The used fuel rods were dismantled in water-filled ponds in a process that generated metallic fragments, some of which entered the site's drainage system and were discharged to the sea in the 1960s and 1970s.

Dr Iain Darby has been working with Dr Jason McIlvenny of North Highland College UHI's Environmental Research Institute, part of the University of the Highlands and Islands, to offer a full PhD bursary in this critical subject.

He said:

Over the years we have been involved in a great deal of research into the way that the particles behave, and we are able to make predictions about the numbers of particles in the marine environment, and where we expect them to be found. However, this is an extremely important area of research for the site as we must demonstrate to the Scottish Environment Protection Agency (SEPA) that the issue continues to be managed in an appropriate way.

Dr Jason McIlvenny added:

The PhD bursary offers an exciting opportunity to collaborate with DSRL to explore a difficult environmental problem. The project will

involve working with state of the art equipment to understand historical movements of the legacy particles and understand the environmental conditions which potentially lead to the mobilisation of radioactive particles in the marine environment.

The successful applicant will be based at the Environmental Research Institute (ERI), North Highland College UHI, part of the University of the Highlands and Islands in the far north of Scotland, and will have regular on site visits to DSRL at Dounreay.

Dounreay is also supporting the NDA PhD bursary on muon imaging at the University of Glasgow; the NDA PhD bursary on eversion and growing robots: pipe navigation, inspection and characterisation at the Queen Mary University of London; and a PhD via Gamechangers into thermal ablation of concrete as a promising decontamination technique. The research for all these PhDs will be trialled at Dounreay in challenging nuclear decommissioning projects.

For more information on any of these exciting opportunities please contact Dr Iain Darby at communications@dounreay.com. If you would like to apply for the PhD bursary please read the [information](#) and complete the [application form](#)

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