



The NERC Radioactivity And The Environment (RATE) Programme – Update on activities

Dr Richard Shaw (British Geological Survey)
RATE Science Co-ordinator

Dr Richard Shaw

- Principal Scientist, British Geological Survey.
- Mining Geologist.
- Karstic sediments (PhD).



- 7 years Uranium exploration.
- 20+ years Geological Disposal of Radioactive Waste (UK, Sweden, France, Japan etc).

Dr Joanna Wragg

- Senior Scientist, Geochemical Baselines & Medical Geology
- British Geological Survey
- Geochemistry (PhD)



- 20 years analytical chemistry, environmental geochemistry and health and contaminant fate & transport.
- Secretary and Co-ordinator of projects for the BioAccessibility Research Group of Europe (BARGE).

Three awards started in October 2013:

- Transfer Exposure Effects (TREE)
 - Lead PI – Dr Benda Howard, NERC Centre for Ecology and Hydrology (bjho@ceh.ac.uk)
- LOnG-lived Radionuclides In the Surface Environment (LO-RISE)
 - Lead PI – Professor Francis Livens, The University of Manchester (francis.livens@manchester.ac.uk); and,

- Hydromechanical and Biogeochemical Processes in Fractured Rock Masses in the Vicinity of a Geological Disposal Facility for Radioactive Waste
- Lead PI - Professor Robert Zimmerman, Imperial College London
(r.w.zimmerman@imperial.ac.uk).

- All three projects have commenced;
- Nearly all PhD students and PDRAs appointed;
- Scientific/fieldwork activities underway.



Meetings planned:

GeoRepNet/RATE – Linking science and technology in Geological Repositories

British Geological Survey, Environmental Science
Centre Keyworth, Nottingham, UK, NG12 5GG 23rd
and 24th of October 2014

Registration and joining details can be found via
http://www.georepnet.org/news.html?news_id=19

Geowaste: 9th-11th February 2015, Burleigh Court, Loughborough

The EPSRC Geowaste and NERC RATE programmes are holding a joint meeting at Loughborough University's Burleigh Court

February 9th – 11th 2015

Contact Joanna Wragg at jwrag@bgs.ac.uk for further information



COGER/RATE joint meeting

W/C 4 April 2015

BGS Keyworth



Summer Schools

LO-RISE/TREE 'Summer' School: The school is planned to include an introduction to radioactivity in the environment, panel discussions on energy resources and geological disposal, careers advice, and a role playing exercise.

W/C19 January 2015, provisional venue
University of Manchester.



Summer Schools (cont.)

RATE 2016 Summer School – ‘The Hydromechanics of Radioactive Waste in the Near Field’ – Programme details TBD



More information on RATE
available at:

www.bgs.ac.uk/rate/home.html

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Radioactivity and the Environment

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RATE Background

The Natural Environment Research Council (NERC), the Environment Agency (EA) and the Nuclear Decommissioning Authority's Radioactive Waste Management Directorate (NDA-RWMD) have commissioned an £8.6m, five-year research programme – [Radioactivity And The Environment \(RATE\)](#).

This programme is augmented by support from the [Science & Technology Facilities Council \(STFC\)](#) through access to training and other resources via its [Global Challenge Networks](#).

The high level goal is to build [UK capacity](#) in radioactivity and the environment, so that a major contribution to enhancement of environmental protection and a safeguarding of human health from releases of radioactivity from nuclear power plants, waste repositories and legacy-contaminated sites, as well as natural radiation, can be made.

[Three research consortia](#) co-ordinated by a [science co-ordination team \(SCT\)](#) have been funded, and are planned to run between 2013–14 and 2017–18. They will address [areas of research](#) within the field of radioactivity and the environment that are currently under-represented in the UK.

To be delivered under the 2013–2018 NERC strategy 'The Business of the Environment' the programme was developed under the previous environment, pollution and human health (EPHH) strategic theme and is forming part of NERC's contribution to the wider [RCUK Energy Programme](#).

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NERC
SCIENCE OF THE ENVIRONMENT

NDA
Nuclear Decommissioning Authority

Environment Agency

Science & Technology Facilities Council

Energy
For a Low Carbon Future

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