

Curriculum Vitae

Andrew Baker

Qualifications and Professional Affiliations

MA Natural Sciences (2:1), University of Cambridge, (1981), specialising in geology and geochemistry

DPhil, Geology and Geochemistry, University of Oxford (1985)

Fellow of the Geological Society of London

Member of the British Nuclear Energy Society

Key Areas of Experience

Management, technical co-ordination and technical contributions to repository safety cases and research programmes;

Radioactive waste management;

Options appraisal;

Environmental regulation, particularly of waste repositories;

Geology and geochemistry.

Selection of Experience

ABconsult (2007)

Independent Consultant on radioactive waste management and disposal issues

Contract to provide lead technical input on post-closure safety issues to the LLWR.

Environment Agency (2004 to 2007)
Manager of the Nuclear Waste Assessment Team

Responsible for a national team that provides technical advice on radioactive waste management and radioactive waste disposal within the Environment Agency. Responsibilities include:

Technical Review of the Nirex (now NDA) programme, including major reviews on concept viability, R & D programme and the Letter of Compliance process;

Contributions to the work of CoRWM and MRWS Implementation, including expert input, technical reviews, membership of the Criteria Review Panel (that together with the Criteria Proposals Group drafted the government's proposed siting criteria for a deep repository) and dialogue on the regulatory implications of Nirex's incorporation in the NDA;

Implementation of the Joint Regulatory arrangements for ILW conditioning and ILW management strategy and development of corresponding regulatory guidance;

Technical review of the LLWR PCSC and review of other safety cases for existing or proposed on-site disposal facilities and radioactively contaminated land;

Review and contributions to a number of major BPEOs;

Management of external contracts for technical support;

Member of the team responsible for the update of the Guidance on Requirements for Authorisation;

Member of the NEA Integration Group for the Safety Case (international technical group on repository safety assessments).

AEA Technology and Serco Assurance (1990 to 2004)
Consultant and Technical Manager

Management of Repository Safety Cases and Supporting Research

I have been managed and/or made major technical contributions to the following projects:

Manager of the Nirex 95 and Nirex 97 (and other) Post-closure Safety Assessments undertaken by AEA Technology for the deep repository at Sellafield;

Manager of two CEC projects to develop safety cases and remediation proposals for the Hungarian national repository at Püspökszilág;

Management of the Nirex Geosphere Research Programme in support of deep geological disposal in the UK;

Management of a large CEC project to review Russian plans for the disposal of radioactive wastes in the permafrost in Novaya Zemlya;

Development of Radioactive Waste Disposal Regulations for the Ukraine and the delivery of corresponding training;

Development of a safety assessment and waste acceptance criteria for the Australian National Repository.

Technical projects in radioactive waste disposal

I have made significant technical contributions to the following example projects:

Natural Analogue Project on the Alligator Rivers Uranium Ore Deposit in Australia;

Development of the Nirex approach to Human Intrusion and the impacts of natural processes;

Member of an international NEA team that discussed and developed approaches to the treatment of human intrusion;

Synthesis and review of R & D on alkaline fluid-rock interactions including authorship of a technical report for Nirex and participation in the CEC Ecoclay II Project.;

Various projects on options appraisal and safety assessment of the UKAEA Dounreay Pits, Silo and Shaft;

Review of the Safety Case for the Yucca Mountain Repository on behalf of the State of Nevada;

Study of the deep injection of liquid radioactive wastes in Siberia as an anthropogenic analogue;

Regulatory support projects in Latvia and Bulgaria;

Numerous projects in the areas of hydrogeology, contaminant transport and safety assessment in support of the Nirex assessment programme;

Support to Nirex during the RCF Public Inquiry;

Development of the Nirex approach to human intrusion;

An assessment of chemotoxic impacts of the Nirex repository;

Other technical contributions to repository and waste management projects in Russia, Ukraine, Bulgaria, the Czech Republic, Slovakia, and Hungary.

Training

Lecturer on a waste disposal Training Course in Taiwan;

Lecture or organiser on a number of IAEA radioactive waste disposal courses in Central and Eastern Europe, participant in IAEA missions to this area.

Options Appraisal

BPEO for PCM at AWE Aldermaston;

BPEO for liquid discharges at Devonport Dockyard (possible construction of a pipeline);

BPEO for contaminated land at Berkeley;

Various BPEOs for waste storage and disposal facilities at Dounreay.

Management and Business Development

Manager of a team of up to a dozen staff;

Manager of projects involving up to 30 technical staff;

Lead responsibility for developing business in the radioactive waste management and radioactive waste disposal business areas.

Natural Environment Research Council (1989 to 1990) Committee Secretary

Secretary to a committee that awarded research grants and research studentships to UK universities in the Earth Sciences.

Research Fellowships at the University of Edinburgh (1985 to 1989)

Two research fellowships on fluid-rock interactions and stable isotope geochemistry.

Publications

Many publications in scientific journals in the geological and geochemical field, including Nature and the New Scientist;

Reports relating to the projects listed above, including acting as one of the lead authors on Nirex 95 and Nirex 97.

Authorship of a number of Environment Agency reports on the Nirex programme, the LLWR Overview Report and reports for CoRWM.

Many publications in the areas above related to presentations at international conferences.

Personal Information

Nationality : British

Date of Birth: 1960

Holder of UK full driving licence

Languages: Fluent French and basic German and Russian