

Name: **Iain Summerfield**
Email: iain@awakenconsulting.com

Qualifications: BSc (Honours) Environmental Chemical Engineering
University of Exeter, 1978

Professional Bodies: Chartered Engineer
Fellow of the Institution of Chemical Engineers

Current Position: Associate consultant,
Awaken Consulting Limited
Principal Summerfield Consulting

KEY EXPERIENCE:

Iain Summerfield provides his services through Awaken Consulting Limited and also as a Principal of Summerfield Consulting, an energy and environmental consultancy specialising in the measurement and reduction of the environmental impacts of industrial energy use and power generation.

He is an environmental chemical engineer with a broad experience in energy and environmental consultancy. He has designed and carried out appraisal work on a range of processes including large scale energy systems, oil and gas production and refining, incinerators, mines, and other industrial processes. He set up the emissions monitoring service at CRE Group Ltd, which carries out emissions assessments for a wide range of public and private sector clients. The UK Environment Agency is their largest customer, reflecting the high standard of work and quality assurance.

For two years in the late 1990s he was resident in Novosibirsk, Russia working as Director of the European Commission Energy Centre. He was responsible for setting up this Energy Centre which gives consultancy advice on energy efficiency and environmental matters to industrial clients and the Regional Administration. During this time, Iain managed feasibility studies on a wide range of topics including industrial energy use, disposal options for municipal sewage, use of local and renewable energy sources, heat and electricity distribution and tariffs, and regional environmental policy and regulation. More recently, he was the lead consultant for studies commissioned by the Environment Agency, the International Energy Agency, the European Commission, and many industrial clients.

His experience as an energy and environmental consultant and project manager has involved assignments in Russia, Kazakhstan, Georgia, China, Poland, Hungary, and the Czech Republic, as well as Western Europe and the Middle East.

Other relevant experience includes:

- consultant to a range of industries on environmental legislation, pollution monitoring and emissions reduction.;
- extensive emissions monitoring experience, including ambient monitoring and dispersion modelling;
- consultant on issues related to the environment and pollution monitoring, advising on liaison with Regulatory Authorities and minimisation of environmental impact;
- experienced environmental auditor to World Bank standards;

- course director and trainer in emissions monitoring, environmental assessment and energy conversion;
- member of Her Majesty's Inspectorate of Pollution (HMIP) Working Group on pollution from combustion processes;
- Russian speaker.

PROFESSIONAL EXPERIENCE RECORD:**2005-DATE: PRINCIPAL, SUMMERFIELD CONSULTING
ASSOCIATE CONSULTANT, AWAKEN CONSULTING LIMITED**

Set up Summerfield Consulting, an energy and environmental consultancy based on Iain Summerfield's extensive experience of the environmental impacts of industrial processes and energy industries.

2001-2005: BUSINESS DIRECTOR, CASELLA CRE ENERGY LTD

Responsible to the Managing Director for the financial and technical performance of the company. The Consultancy carried out energy and environmental projects for a wide range of clients in the UK and overseas. Annual turnover was approximately £1 million.

Directly responsible for consultancy projects in the UK and overseas. Examples include:

Consultant to Qatar Petroleum, surveying and recommending stack sampling facilities required for over 120 combustion emission sources at their production and refinery operations both onshore and offshore.

Consultant to IEA Greenhouse Gas project on the environmental impacts of power plant developments incorporating CO₂ capture and disposal technologies.

Project Director for a European Commission funded technology transfer initiative to Russia. Designed and delivered three workshop style conferences on clean coal technologies to senior managers and engineers in the electricity generation sector in Novosibirsk, Ekaterinburg, and Moscow.

Project Director for a European Commission funded investigation into the exploitation of low volatile coal resources worldwide, with particular emphasis on China, Eastern Europe and former Soviet countries.

Senior Lecturer on Emissions Monitoring Training Courses held at CRE for Environment Agency personnel.

Overall technical and financial responsibility for a wide range of consultancy and research projects, managing a staff of 10 to 15 professionals.

1997-2001: PRINCIPAL CONSULTANT, CRE GROUP LTD

Responsible to the Managing Director for overseas marketing and sales initiatives.

Responsible for consultancy projects in the UK and overseas. Examples include:

Consultant to the Environment Agency (UK) on the quality of emissions monitoring sampling positions in the Agency's NE Region, and the effects on analysis accuracy.

Consultant to the Coal Authority (UK) on the environmental impacts of an underground coal gasification development.

Consultant to the Environment Agency (UK) on emissions monitoring policy for processes regulated by the Agency.

Senior Lecturer and Course Director on Emissions Monitoring Training Courses held 4 times a year at CRE.

Senior Lecturer and Course Director on Emissions Monitoring Training Courses held at CRE for Environment Agency personnel.

Project Manager of Tacis Project "Environmental Management for the Paz River Basin" in North Eastern Russia.

Leader of one of three teams in an environmental due diligence investigation for Credit Lyonnaise, EBRD and World Bank into a range of minerals mines, smelters and associated facilities (including coal mines and power stations) in Kazakhstan. Responsible for a total of 11 technical, environmental and social policy audits to World Bank standards.

Assisted with setting up the Tacis Energy Centre in Georgia advising the Centre Director and Training Manager, and led a team investigating means of utilising the natural energy resources in and below the Black Sea.

**1995-1997: ENERGY CENTRE DIRECTOR (NOVOSIBIRSK, RUSSIA),
CRE GROUP LTD**

Director of the Tacis Energy Centre, Novosibirsk, Russian Federation (European Commission). Responsible for setting up and equipping the Energy Centre, recruiting staff, and all operational and financial management issues associated with this Euro 2.6 million Technical Assistance project. Also responsible for all technical issues associated with the operation of the Energy Centre: preparation of progress reports, training, approval of all consultants' reports, and quality control.

As Director of a team of 30 Western consultants from 3 organisations (from the UK, Germany and Greece), responsible for co-ordination of the whole programme of advice on energy and environmental issues. This included 18 energy audits, 19 detailed feasibility studies, 2 public awareness campaigns, 3 International conferences, 3 two week training courses, 2 one week training courses, 2 workshops, an exhibition, 2 study tours to Europe, training and management of Russian staff.

1993-1995: SENIOR CONSULTANT/PROJECT MANAGER, CRE GROUP LTD

Project Manager of Almaty Air Quality Study, Republic of Kazakhstan. (Asian Development Bank). Responsible for gathering data on emissions from 3 coal-fired power plant in Almaty, (including emissions measurements at each power plant), and developing a computer model which was used to represent the current environmental situation in Almaty and to predict the environmental improvement accruing from retrofitting options.

Senior Consultant on Benxi Energy and Air Quality Management Study, Peoples Republic of China. (World Bank). Responsible for developing an atmospheric dispersion model of a heavily polluted city and developing remedial strategies in terms of environmental improvement per dollar invested.

Energy and Environmental Consultant on Ostrava Regional Energy Study, Czech Republic. (EC Phare Programme).

Project Manager of a design and costing study for three environmentally friendly power plants in the Netherlands for the International Energy Agency, including a life cycle analysis of the options.

1991-1993: GLOBAL WARMING R&D TEAM LEADER, COAL RESEARCH ESTABLISHMENT, BRITISH COAL CORPORATION

Responsible for all aspects (technical and managerial) of the Global Warming R & D Team's work within Environment Branch. Project Manager and co-ordinator of a £1.5 million multinational collaborative project assessing technology responses to the threat of global climate change.

1989-1991: EMISSIONS MONITORING TEAM LEADER, COAL RESEARCH ESTABLISHMENT, BRITISH COAL CORPORATION

Responsible for all aspects of the Emission Monitoring Team's work. Project Manager with overall responsibility for monitoring campaigns which covered a wide range of combustion equipment in the UK and Europe, including coal, oil and gas-fired boilers and furnaces as well as waste incineration equipment.

Consultant to a range of industries (chemical, pharmaceutical, waste disposal, mining) on environmental legislation, air pollution monitoring and emissions reduction. Consultant on issues related to the environment and pollution monitoring, advising on liaison with Regulatory Authorities and minimisation of environmental impact. Member of HMIP Working Group on boiler emissions. IChemE representative on British Standards Committee on "Stationary Source Emissions".

Site Environment Officer, responsible for investigating and minimising the environmental impact of a large Research Establishment.

1986-1989: FBC MATERIALS PROJECT LEADER, COAL RESEARCH ESTABLISHMENT, BRITISH COAL CORPORATION

Responsible for an experimental programme examining the factors influencing boiler tube wear in fluidised bed combustion (FBC). This work resulted in design guidelines which were issued to all UK FBC boiler manufacturers.

1978-1986: GASIFICATION PLANT PROJECT ENGINEER AND PROJECT LEADER, COAL RESEARCH ESTABLISHMENT, NATIONAL COAL BOARD

Responsible for the design, construction and commissioning of a £1.2 million pilot plant coal gasifier.

Project Manager for the temporary conversion of a commercial activated carbon production plant to a large scale experimental gasifier. This included responsibility for design, safety, construction, commissioning, and execution of the experimental programme.

PUBLICATIONS

26 published papers – 2 prize-winners.