

DR ELEANOR LISTER

Highlights

- PhD in Risk Management for Tidal Stream Turbines and the potential failure modes due to corrosion and biofouling.
- MSc(Eng) in Environmental and Energy Engineering
- Development of Fault Tree and Event Tree modelling using RiskSpectrum PSA Software for a number of Nuclear Power Stations in the UK.
- Technical Coordinator LASTFIRE (Large Atmospheric Storage Tank Fires) – an international forum of oil companies to develop guidance on best practices for storage tank fire risk reduction. (Incorporating data collection, risk reduction options review and the development of practical fire test work.)
- Participant in LASTFIRE research project to evaluate new generation fire fighting foams including practical test work and data analysis
- Experience in compiling IPPC permit applications and COSHH assessments.

Date of Birth: 27/3/84

Eleanor is a well established and experienced academic, with a background in risk management reflected in a range of courses of study and in front-line experience in the application of risk management techniques, including Probabilistic Safety Analysis (PSA) and Failure Modes and Effects Analysis (FMEA) particularly across the energy industry. During her extensive academic career, she has been thoughtful about the practical aspects and applications of the research work which she has undertaken.

In her current role Eleanor is utilising both technical experience and project management expertise, especially in her role as Technical coordinator for LASTFIRE, where she has gained hands on experience of fire testing as well as data analysis and project management.

In previous roles, Eleanor has experience in project management and its application across both small and medium sized enterprises and with national government bodies, such that high-performance in the academic world is matched by practical application of skills, experience and knowledge to achieve real and measurable improvement in risk management processes in both the private and public sectors.

Her curriculum vitae and career summary, demonstrates resilience and a determination to achieve successful outcomes in a challenging environment. What she has also demonstrated is a capacity to apply risk management approaches and techniques in a range of settings. Eleanor is a well rounded person with a wide range of interests which show her accepting and achieving performance in some tough physical challenges, as well as providing leadership and example to others.

Academic Qualifications

- | | |
|------|--|
| 2006 | MPhys in Physics and Astrophysics, First Class with honours, University of York |
| 2008 | MSc(Eng), Distinction, Energy and Environmental Engineering, University of Sheffield |
| 2014 | PhD, Chemical Engineering, University of Sheffield |

Professional Memberships/Qualifications

- Member of the Energy Institute

Specific Specialist Experience

- Experienced user of RiskSpectrum PSA Software and R-DAT Software
- Development of Fault Tree and Event Tree Modelling to build a Probabilistic Safety Analysis (PSA) Model for nuclear power stations
- HAZOP and HAZID Secretary experience for coal fire power stations
- Development of a Failure Modes and Effects Analysis (FMEA) for a Tidal Stream Turbine.

Typical Projects

- Involved in the update to LASTFIRE Project Deliverables including Risk Reduction Options Guidance and Foam Position Paper
- Involved in the development of the LASTFIRE Foam Assurance Guidance and Questionnaire documentation, including implementation and testing of auditing tools at site.
- Participant in ongoing LASTFIRE research project to evaluate new generation fire fighting foams including practical test work, data analysis and report development, including the following:
 - Large Scale Fire Testing
 - Small Scale Fire Testing
 - Vapour Suppression measurements and analysis
- Update to PSA for a number of UK Nuclear Power Stations, including Hunterston B, Hinkley Point B, Heysham 2 and Torness, including using OPEX to update component failure data and trip date to update initiating event frequencies.
- Development of Fault Trees for a number of risk significant post-trip systems at Nuclear Power Stations.
- Development of Event Trees for hazard initiating events, including internal/external fire and flooding events.

- Development of Boiler Tube Fault PSAs for Hunterston B and Hinkley Point B Nuclear Power Stations.
- HAZOP and HAZID Secretary for assessment of design alterations at West Burton and Cottam Coal Fired Power Stations in the UK.

Career Experience

Nov 2015 – Present Consultant, ENRg Consultants Ltd

Involved in the update to LASTFIRE Project Deliverables including Risk Reduction Options Guidance, Foam Position Paper and Foam Assurance Guidance and Questionnaire. Experience in fire water and foam system design calculations. Involved in LASTFIRE research projects, including evaluation of new generation fire fighting foams.

Oct 2013 – Jul 2016 Junior Consultant, CRA

Project Manager for a number of projects, including the 2016 PSA Update for Hunterston B (HNB) and Hinkley Point B (HPB) Nuclear Power Stations. Team member in projects developing Boiler Tube Fault PSAs for HNB and HPB. HAZOP and HAZID Secretary for design alterations at a Coal Fired Power Station. Experienced user of RiskSpectrum PSA Software, using the software to produce Event Trees and Fault Trees for several Nuclear Power Stations in the UK. Also a competent user of R-DAT Software to understand the effect of using recent OPEX to calculate failure data for components used within Fault Tree and Event Tree modelling.

Feb 2009 – Sept 2009 Project Manager, Pro Enviro

Pro Enviro is an Environmental Consultancy, working with a wide range of clients from SMEs to Governmental bodies. Eleanor gained experience in compiling IPPC permit applications (having written an application for a large chemical manufacturer), as well as undertaking significant research into the application of a Low Carbon Economy and the need for the development of a skills base for this ideal. The work also consists of energy and resource efficiency work, such as calculating pressure losses along gas pipes in a forgers to understand how they can work more efficiently and hence reduce energy costs.

Sept 2008 – Jan 2009 Graduate Consultant, RPS Ltd

Work consisted of general safety support in the Nuclear industry. This work gave an invaluable insight into the workings of the Nuclear

industry, the complexities and the issues that are faced throughout the life-cycle of plant.

Jan 2007 – Sept 2007 CMS Consultant, Sypol Limited

Employed at Sypol Limited as an HSE Consultant specialising in the compilation of COSHH assessments for international companies. provided valuable insight into the HSE. Eleanor was a member of their helpline team. This work included answering all queries regarding the COSHH Regulations and the COSHH management system that Sypol deliver. The IIRSM (International Institute of Risk and Safety Management) had also seconded their technical helpline to Sypol and the role also included answering queries for this. These included queries over the whole spectrum of Health, Safety and Environmental issues, for clients from an extremely diverse background.

2004 – 2007

Trainee, Resource Protection International

This work provided experience of working in the Fire Hazard Management industry. As part of this work for Resource Protection International Eleanor participated in research that was being carried out as part of the LASTFIRE Project – an oil industry forum. The research was conducted to investigate the occurrence of major fires in crude oil storage tanks. My involvement included helping to design the test equipment and programme, installation of instrumentation, recording data throughout the testing and the writing of the final report and test data analysis. This will be of great value in determining safe and efficient response strategies and tactics in the event of a major crude oil fire. Such incidents have been shown to have a major impact on a company's reputation as well as representing a safety, environmental and business risk.