

Dr Nigel Gibson

Ricardo Energy & Environment

Qualification(s) *PhD Chemical Engineering, Birmingham University, 1991.
Bsc Applied Chemistry, Hatfield Polytechnic, 1988*

Nationality *British*

Language(s) *English (Mother Tongue)*



Profile

Nigel Gibson has worked in the environmental sector for several years and his technical expertise includes measurement of odour and pollutant, impact assessment using screening and modelling techniques, and BAT assessment of abatement techniques. Nigel has also prepared environmental guidance documents for a number of Government Bodies, on odour assessment and control (Environment Agency), control of compost odour (Defra) and control of odour from commercial kitchens (Defra). Nigel is the UK's representative on a number of EU CEN Working Groups, include odour, TOC and instrument certification. In addition, Nigel has provided expert witness advice to local councils and other regulatory bodies on numerous sensitive odour and air quality -related planning applications & appeals. Nigel has been involved with numerous composting facilities dealing with ABP, green waste, mushroom compost, sewage sludge and mixed waste systems.

Key Skills

- + AQ measurement, impact assessment and developing control strategies
- + VOC measurement, impact assessment and developing control strategies
- + Dispersion modelling
- + Development of standards and guidance
- + Expert witness (court, planning/public enquiries, arbitration).
- + Communicating and presenting to customers and stakeholder

Selection of Project: Training and guidance development

Essential PPC seminars EMAQ

Developed and presented training material to increase awareness of EHO's duties under the Environmental Permitting Regulation 2007 (as amended), Material was presented on industrial process emissions and control, emissions monitoring for BAT compliance, general EPR regulation and permitting.

Advanced PPC seminars EMAQ

Developed and presented training material to increase awareness of EHO's of the practical application of permitting. The seminars are an extension to EMAQ essential permitting package and focus on permitting of Part A and Part B facilities (foundries, cement batching, quarries, paint spraying, crematoria, small combustion plant). The seminars gave a general introduction to permitting in a particular sector and cover particular topics of interest (e.g. odour, dust, mercury etc.). We review the guidance which EHO need to consider in this work, how permits should be developed, and techniques for demonstrating BAT through monitoring, assessment and control. The seminar relied on a series of case study examples to reinforce topics under discussion.

Odour training EMAQ

Developed and presented training material to increase awareness of EHO's and planners dealing with planning applications for composting facilities. The training package was designed to promote Guidance on controlling compost odour that AEA had recently prepared for Defra. The package provided a general introduction to odour, generation of odour from composting facilities, types of assessment and control methods and key points that needed to be considered as part of the planning process

SNIFFER

Prepared technical guidance on the implementation of the sector guidance note for rendering (SG8). The guidance sets out the main issues for odour control at a rendering plant and provides practical guidance on BAT for odour control. The guidance used a series of case studies to show examples of best practice being applied. The guidance also included a summary of recent legal cases (prosecutions, appeal) relating to renderers.

MIRO

This project is designed to prepare guidance on monitoring, assessment and control of nuisance and health dust from quarry and related operations. The objective of the guide was to 'standardise' the procedures adopted by the LAs and other interested parties.

Defra,

Prepared technical document for publication relating to odour measurement and control for odour and noise from commercial kitchens, on managing odour from compost operations and managing nuisance related to bonfires.,

SEPA,

Prepared technical guidance relating to the health effects attributed to odour exposure with particular reference to regulated processes.

EA,

Prepared a technical review on odour measurement and control for Environment Agency regulated sites. The material was incorporated in the initial draft of the Environment Agency's H4 technical guidance document (2001)

Selection of Project: Impact assessment**Air quality (human and ecology sites) and health impact assessment for several waste gasification plants**

These projects involved assessing the contribution from the gasification process to the various receptor media in the local environment. The studies were designed to test the appropriateness of emission control techniques to ensure compliance with relevant benchmark.

Dioxin health impact – waste incineration Neath Port Talbot Recycling

This project involved assessing the cancer risk and tolerable daily intakes associated with dioxins at WID limits and at actual measured emissions. The study was required as part of improvement notice and showed that predicted risks were below guidelines.

Development on land next to a foundry site

This project involved assessing the potential for dust nuisance if land next to the development site were developed. The study involved TSP measurement and dispersion modelling.

Technical support – Eli Lilly

Provided technical support to assist Eli Lilly during the permit application process for a new fermentation process. The work involved measuring odour from existing plant and predicting what future emission odour emissions from the facility would be. Support was also provided for the development of an odour management plan for the site.

Technical support – Newham Borough Council

Providing technical support to the Council with respect to assessing whether due diligence had been applied by the operator. The work supported the Councils action in relation to a breach of permit conditions. The work has involved two prosecutions and one planning appeal.

On-going Private nuisance claim

Providing expert evidence relating to nuisance arising from a rendering plant. The work has involved identifying the most likely causes of odour emission from the site.

On-going Private nuisance claim

Providing expert evidence relating to nuisance arising from a biofuel processing plant. The work involved assessing the suitability of emission control equipment and complaints attributed to the plant.

On-going Private nuisance claim - various

Providing expert evidence relating to nuisance arising from operational landfill sites. The work has involved identify instances of poor management and emission control and predicting the impact of odour throughout the claim period.

Private nuisance claim

Providing expert evidence relating to nuisance arising from an aluminum foundry. Work involved measurement and assessing emission emissions, linking emission to working practices and assessing likelihood of complaints. Our report was used to support a successful nuisance claim by residents.

Planning appeal Land off Ashly Road

Provided expert support of the appellant seeking to alter the terms of planning permission. The work involved presenting evidence at Inquiry.

Emissions monitoring of closed landfill sites.

Provided technical support with respect to a emissions monitoring at a number of landfills

Moy Park - food manufacture

Provided technical support to address the requirements of improvement conditions. The work involved source characterisation using AEA's in-house capabilities, selection of BAT compliant technologies, and preparing site odour management plan. The work has also involved on going monitoring of control equipment.

Global Renewables

Providing technical advice to the operator in order to identify and remedy problems with 5 odour control systems. The work involving reviewing design and performance data to identify issues. The project also involved using AEA olfactometry capability.

Novartis

Provided technical support to EPR permitting team to develop and implement an odour abatement strategy for a pharmaceutical installation. The work involve source characterisation using AEA's in-house capabilities, selection of BAT compliant technologies, carrying out pilot trials of technologies to demonstrate suitability, preparing site odour management plan

wwtw nuisance – Sandon Dock Claimants

This project involved providing technical support to the legal team on odour assessment criterion and the potential effects of odour on local residents.

Premier Foods PLC

This work involved providing a technical support on odour related issues in relation to industrial effluent plants dealing with waste from canning and cooking sauce manufacturing activities, and sauce manufacture. The objective of this work was to satisfy the requirements of range of regulation including: offensive odour under the EPR regime, nuisance odour under part III EPA 1990, and planning.

Risley Landfill site extension - Warrington Borough Council

This work involved carrying out an odour survey of the site to support an odour impact assessment. The work also involved discussion with the applicant to mitigate the odour emissions from the site.

Career History**2012 - Present, Special Source Assessment Project Manager, Ricardo-AEA Ltd**

Responsible for undertaking and managing various odour/VOC/dust/health assessment and abatement projects and Managing UKAS accredited olfactometry laboratory

1994 - 2012, Special Source Assessment Project Manager, AEA Technology plc

Responsible for undertaking and managing various odour/VOC/dust/health assessment and abatement projects

1991 - 1994, Higher Scientific Officer, Warren Spring Laboratory

Member of Olfactometry section with responsibility for odour project work and equipment development.

1988 - 1991, Postgraduate, University of Birmingham

Undertaking a research project to develop adsorbent materials for biochemical separations

Selection of publications

- Nigel Gibson, Robert Stewart and Erika Rankin " Air quality assessment of benzo(a)pyrene from asphalt plant operation" J. Environ. Monit., 2012, 14, 233
- Parker,C., Gibson, N. "Good Practice and Regulatory Guidance on Composting and Odour Control for Local Authorities" March 2009
- Gibson, N."Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems January 2005

- 2002 Butler. D., Gibson, N."Determination of the Best Available Techniques for Control of Odour – Environment Agency R&D Technical Report P4-079/2,
- Gibson, Swanell, Woodfield, Van Groenestjin, van Kassell, Hesselink, Hecht "The abatement of volatile organic compounds (VOCs) by biological methods: A protocol outlining their relationship to conventional techniques and their applications to uncontrolled sources (EC STEP project 900431) December 2003