



Curriculum Vitae

Martin Harry Goose

Date and Place of Birth:

1st July 1951, Southend-on-Sea, Essex, England

Education:

Westcliff High School for Boys (Selective Grammar School), Essex, England

Loughborough University of Technology, Leicestershire, England

Qualifications:

BSc (Hons) Chemical Engineering, Loughborough University

Diploma in Industrial Studies, Loughborough University

Fellow of the Institution of Chemical Engineers

Chartered Engineer

European Engineer

Experience:

1969-76 Process management and design, within the Government explosives industry, of explosives and nitrating acid manufacturing plants. Process management of the manufacture of rocket motors for guided weapons.

1977-80 Working as a process safety specialist at a Field Consultant Group and headquarters of the Health and Safety Executive (HSE), advising on all aspects of fire and explosion safety, including unstable substances. Specialising in LPG. Various special projects including national project on safety at high hazard solvent evaporating ovens. Expert evidence for Coroner's enquiries etc. Development of approaches to integrated process fire precautions and general fire precautions under the Fire Certificates (Special Premises) Regulations 1976.

1980-89 Working as a Principal Specialist Inspector (Explosives) in HM Explosives Inspectorate (HSE) advising occupiers on all aspects of explosives and general safety in explosives premises. National topic specialist on explosives classification advising UK government departments. Representing UK at the UN 'Group of Experts on Explosives' on transport of civil use explosives (land, sea and air), at the International Maritime Organisation, and at the International Civil Aviation Organisation.. Representative on the HSE Microprocessor Technical Committee dealing with computer control of chemical plant. Extended period on temporary promotion to HM Deputy Chief Inspector of Explosives.

1989-2002 Working as a process safety specialist team leader in the Major Hazards Assessment Unit (MHAU) of HSE, advising Local Planning Authorities on off-site risks in the vicinity of Notifiable Installations. Assessing the predictive aspects of SEVESO directive safety reports. Specialist on loss prevention, particularly on fire and explosion issues, for high hazard sites under CIMAH and COMAH, including land use planning issues around those sites. Expert evidence at legal proceedings and public inquiries. Topic specialist on LPG, similar flammables and explosions, including management of research projects. Development of hazard and risk assessment techniques for LPG and explosions, including site specific BLEVE frequency models incorporating jet fire modelling. Manager of all information technology systems for MHAU, including local and wide area network. Member of the Institution of Chemical Engineers, Major Hazards Assessment Panel, Overpressure Working Party. Supporter of triennial European Safety and Loss Prevention Conference with published papers at Barcelona, Stockholm and Prague. Member of IChemE NW branch and supporter of their 'Hazards' symposia.

2002-05 Head of Methodology and Standards Development Unit (formerly Major Hazards Assessment Unit). Committee Member of the Institution of Chemical Engineers, Safety and Loss Prevention Subject Group.

2005 Working as a process safety specialist in the HSE Chemical Industries Division, Operational Policy Unit. Special projects on local societal risk and sustainability.

2005-07 Working as a process safety specialist in the HSE Process Safety Corporate Topic Group (PS CTG), including 6 months as head of the PS CTG and Process Safety Specialist Pool.

31st March 2007 Applied for and obtained early retirement from the HSE.

April 2007 to 2017 Consultancy on Safety and Loss Prevention in the Major Hazards topic area. *Pro Bono* work for the Institution of Chemical Engineers and the Chemical Industries Association.

Major Projects etc.:

Formulating operational stance on the explosives provisions of the Dangerous Substances in Harbour Areas Regulations 1987, including introduction of PC computing for explosives quantitative risk assessment.

Joint author of the IChemE major hazards monograph *Explosions in The Process Industries*.

Working with the Chemical Industries Association to produce "Guidance for the location and design of occupied building on chemical manufacturing sites", CIA/CISHEC, 1998, including developing the risk based assessment methods for new and existing buildings including the 3rd edition (2010).

Working with the Malaysian Government and the Malaysian chemical sector, on an International Labour Organisation attachment, to help establish the major hazards regulatory regime which was to be based on the EU Seveso model. Subsequent ILO attachment to advise the Kingdom of Saudi Arabia on the same topics.

UK representative at the European Technology Platform on Industrial Safety (ETPIS).

Member of the Policy and Procedures Review team post Buncefield, reporting to the Major Incident Investigation Board, additionally advisor on Safety Reports for, and Land Use Planning in the vicinity of, SEVESO directive sites to the Buncefield Major Incident Investigation Board.

Member of the IChemE's 'ChemEnvoy' panel responding to media enquiries and public enquiries/committees.

Technical advisor to the US Occupational Safety and Health Administration on issues related to the location and design of occupied buildings at process plants.

Expert witness for multinational companies in civil litigation in Australia and the USA, the latter involved litigation in the USA about regulatory compliance at a Major Hazard site in the UK. In that case I served as an expert witness about U.K. regulation of health and safety in *INVISTA B.V., et al. v. E. I. du Pont de Nemours and Company ("DuPont")*, United States District Court for the Southern District of New York, Case No. 08-cv-3063, on behalf of DuPont. I was deposed on my opinions in this matter and provided written testimony, though the case settled before the U.K.-related issues were raised in court.

Significant Technical Publications/Papers (Sole Author):

Incorporating the Effect of Water Sprays into A.L.I.B.I., a Model for Site Specific Prediction of LPG Tank BLEVE Frequency 9th International Symposium, Loss Prevention and Safety Promotion in the Process Industries, 4th – 8th May 1998, Barcelona, Spain

Location and Design of Occupied Buildings at Chemical Plants - Assessment Step by Step, Hazards XV, Institution of Chemical Engineers, North West Branch, 4th – 6th April 2000, University of Manchester, England & 10th International Symposium, Loss Prevention and Safety Promotion in the Process Industries, 2001, Stockholm, Sweden

'All Measures Necessary' under the EC Seveso II Directive, Demonstration of Safety, Step by Step, 11th International Symposium Loss Prevention and Safety Promotion in the Process Industries, 31st May – 3rd June 2004, Praha, Czech Republic

Gross Disproportion, Step by Step - A Possible Approach to Evaluating Additional Measures at COMAH Sites, Hazards XIX, Process Safety and Environmental Protection, Institution of Chemical Engineers, North West Branch, 28th – 30th March 2006, University of Manchester, England

Model Code for the Management of Risk Issues, published by the Institution of Chemical Engineers, 2012