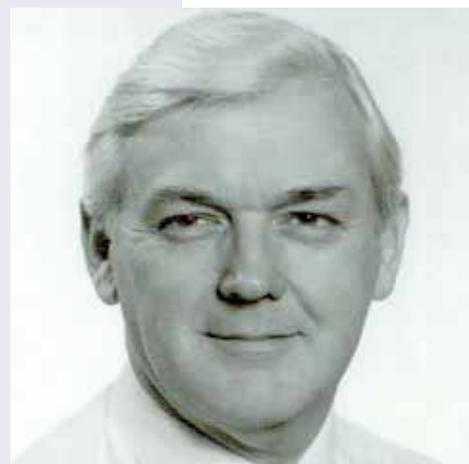


Curriculum Vitae Dr Keith Gugan PhD CEng CSci Eur Ing FIChem E

Keith Gugan, an Associate of **SafeGuard Security Consultants Limited**, independent consultants, specialising in security for property, assets and people, has been an **Independent Security Advisor and Expert Witness** since 1968 specialising in fire, arson, explosions and safety in the gas and oil industry.



Following graduation Keith lectured and undertook post-graduate and post-doctoral research at Imperial College. Invited to join Dr Jack Burgoyne in his practice of fire and explosion investigation in 1965, he became a partner of DR J H Burgoyne & Partners in 1968. Establishing his own consultancy in 1976, Keith continued to undertake numerous 'post event' on-shore, marine or aviation investigations of fire, explosion and chemical incidents worldwide, primarily for loss adjusters and solicitors. This included appearing as an expert witness on numerous occasions.

Keith was appointed Research Fellow of the IChemE in 1997 to study and report on the current state of knowledge regarding unconfined vapour cloud explosions; work that was published in the UK and US under the title 'Unconfined Vapour Cloud Explosions'. In the early 1990s, Keith moved towards the 'conception' field and the construction of oil and gas installations around the world.

Joining AMEC (now AMEC Foster Wheeler) in 1999 as their Chief Safety and Environmental Consultant, Keith continued to investigate numerous incidents for AMEC around the world.

Leaving AMEC in 1999, Keith joined EP Consult as a principal engineer consulting on fire, explosion and safety in the oil and gas industry. He continues to act as a consultant.

Keith's long and varied industry expertise with a wide customer base includes, amongst others, Shell, Texaco, Maersk, GASCO, Exxon, and BP including BP Chemicals, in Safety and Loss Prevention for MSc students at University College London.

With his wide technical base, extensive engineering experience, investigative skills and detailed knowledge of the industry, Keith is well placed to provide expert witness and litigation services in the areas of fire, arson, explosion, and safety in the oil and gas industry.

Keith has a BSc degree in Chemical Engineering, is a Doctor of Philosophy (Chemical Engineering), a Chartered Scientist, and a Chartered Engineer, a Fellow of the Institution of Chemical Engineers and a registered European Engineer (Eur Ing).