



An IChemE-accredited Professional Process Safety Engineer, TÜV-certified Functional Safety Engineer and Chartered Chemical Engineer, Alastair has 26 years' UK and overseas experience working for blue chip organisations in sectors including upstream oil and gas, risk consulting and EPC. Driven by challenge, Alastair has a track record of success in risk management, process design; solving complex technical engineering problems, streamlining and optimisation of processes; change management; and process management. Motivated by new challenges, Alastair completed his MBA at Cranfield in 2007 in order to complement his technical skills with a sound grounding in business administration. His varied academic and professional experience has allowed him to harness and apply optimal solutions transcending across industry boundaries. A skilled team player, Alastair has proved adept at adapting his skills to new environments and challenges, overcoming prejudices and resistance to change, to consistently exceed expectations.

## PROFESSIONAL CAPABILITIES & ACHIEVEMENTS

**11/13 – now    Lead Safety & Risk Engineer –** Worley (formerly WorleyParsons), Manchester (Contract)

- Support office Process Safety Lead for multiple Karachaganak onshore O&G projects, interfacing with home office (Kazakhstan) and Client directly
- Chaired 3-week long brownfield HAZOP - Karachaganak onshore gas debottlenecking project
- Performed Process Safety Due Diligence assessment for a company acquisition
- Develop Design Safety Cases for FEED projects
- Oversaw multiple SIMOPS 3<sup>rd</sup> party SIMOPS MOPO workshops
- Led 3-month duration SIMOPS project for Yamal LNG Siberian complex including facilitating HIRA in Moscow, development of SIMOPS standard, procedures, matrix and bowties
- Chaired LPG storage HAZID & HAZOP for Glencore, Beira Terminal, Mozambique
- Performed cold vent radiation and dispersion modelling for Aliaga Cakmakli Port LNG Floating Storage Regasification Unit (FSRU) Terminal in Turkey
- Performed consequence modelling for a packaged Liquefied Natural Gas (LNG) storage and vaporisation module for AcelorMittal Exploitation Minière (AMEM) power plant located in Port Cartier, Quebec
- Chaired HAZOP of oil storage system for Portland Bunkers UK Ltd; developed Bowties
- Lead for onshore compression project for PX Ltd: TGPP, Teesside (upper tier COMAH).
- Lead for Kuwait FEED projects: PW disposal, central gas plant, steam flood.
- Developed Loss Prevention bases of design and specifications
- Senior S&R Engineer on Apache Nitrogen Injection Facility FEED project (upper tier COMAH).
- Facilitated a HAZID session at produced water handling plant in Kuwait and flash gas compressor project in Kazakhstan
- Led a LOPA for a vapour recovery unit of a produced water handling plant
- Led a HAZOP session for a Kuwait gas treatment plant
- Developed F&G, fire-fighting and safety equipment layouts
- Oversaw fire and gas mapping activities (Detect 3D and AMNIS) and F&G C&E development
- Completed firewater demand studies
- Developed Emergency Response Interaction Plans and Security Plans
- Performed radiation and noise modelling for vertical/horizontal flares & vents (Flaresim)
- Performed hydraulic analysis for fire water networks (Pipenet and Fathom)
- Developed Hazardous Area Classification schedules and drawings
- Developed Bowtie diagrams for major accident hazards (Bowtie XP)
- Performed consequence modelling / fire explosion risk assessments using PHAST
- Developed scopes of work and managed 3<sup>rd</sup> party consultancy for QRA, FERA and EERA
- Provided real-time Process Safety input to other Engineering disciplines scopes
- Input to development of proposals and budget estimates for new business; TBE
- Core member of Engineering department for ~5 years including support to other offices

**10/09 - 11/13 Senior Safety & Risk Engineer - BHP Billiton Petroleum UK (Staff)**

- Promoted to Senior Engineer in 2012; selected for position in corporate head office (Houston)
- Recipient of UK Production Unit HSE Leadership Award 2011 - outstanding contribution to major accident hazard (MAH) management
- Facilitated a Piper Alpha 25<sup>th</sup> anniversary workshop for BHP head office personnel
- Led global initiatives for BHP Billiton in the UK, visiting other global sites
- Custodian of Offshore Safety Cases and Gas Terminal COMAH Report
- Full responsibility for Process Safety in the UK
- Led MAH awareness event at Noble Denton's Spadeadam site for selection of workforce
- Deputised for HSE Manager
- Developed Bowtie diagrams (Bowtie XP) for all material risks (safety and environment)
- Validated design bases on a range of Safety Critical Elements (SCEs)
- Act as a HAZOP / LOPA facilitator (TÜV-approved FS Engineer; IChemE HAZOP Leader)
- Carried out Human Factors reviews on procedures with MAH potential
- Lead Auditor; participated in high-risk contractor audits (e.g., Bond Helicopters, Petrofac)
- Designated Incident Team Coordinator / Leader (including a SOSREP exercise attended)

**04/09 - 10/09 Consultant / Owner - The Process Engineer Ltd – Process Safety Consultancy**

- Formulated a permit-to-work system for a UK higher education college
- Developed a PSM best practice manual and auditing tool for a Middle East oil company
- Conducted site hazardous area classification survey and report for global chemicals distributor
- Co-developed HAZOP and PHR procedures for a paper manufacturer
- Designed and built a website for a safety consultancy; advised on business development

**10/08 – 04/09 Risk Consultant - HFL Risk Services - Loss Prevention Specialists**

- Co-wrote a COMAH safety report for a solvent processing company (for SRM)
- Performed API relief valve fire-engulfment calculations on various client systems (for Evonik)
- Acted as a technical secretary at various HAZOPs and LOPAs for a solvent recovery process
- Assisted with the production of a hazardous area classification (HAC) report (for AB Mauri)

**11/05 – 10/08 Process Engineer - Simon Carves Ltd (a Punj Lloyd company)  
*Contracting Process Engineers (Chemical, Oil & Gas, Pharmaceutical)***

- Nominated as area expert for engineering team in 300KTPA petrochemical plant EPC project
- Conducted FEED studies for a Chlor-Alkali plant (for Client, Arkema; Licensor Ineos)
- Conducted HAZOP and LoPA reviews for Chlor-Alkali and LDPE plants.
- Developed a bases of safety dossier for the plants
- Helped develop spreadsheet-based dispersion-modeling studies of a Nitrogen stack

**03/04 – 11/05 Process Engineer - Eli Lilly & Company Ltd – Speke, Liverpool  
*Animal and human health pharmaceutical products***

- Ensured the continued plant safety and regulatory compliance to cGMP standards
- Optimised an odour-abatement scrubber resulting in a reduction in off-site complaints
- Acted as a technical focal point for an on-site fire/explosion incident investigation
- Completed an Explosion Protection Document for a flammable solids plant

**10/03 – 03/04 Process Engineer (contract) - Lever Fabergé (Unilever PLC) – Seacroft, Leeds  
*Leading European FMCG manufacturer and distributor***

- Designed and project-managed new clean in place (CIP) system at deodorant factory to minimise the potential for harm to human health

**06/03 - 10/03 Risk Consultant (contract) - HFL Risk Services - Hyde, Cheshire  
*Loss Prevention Specialists***

- Successfully project-managed IPPC applications for ethylene oxide plant and landfill site, consulting with the Client at various levels

**2001 - 2003      Senior Process Engineer - BOC Edwards Kachina - Phoenix AZ, USA**  
*World leader, semiconductor parts cleaning & component management*

- Innovative & virtually autonomous design, PM & commissioning of a novel £200K flammable organic solvent process cleaning / waste handling facility at Altis Semiconductor, Paris:
- Led & documented all HAZOP studies for BOC Ltd on new £4M plant installation in Paris:
- Conceptualised needs of USA business into standards acceptable & legal in Europe

**1997 - 2001      Operations Manager - Hays Chemicals Ltd - Sandbach, Cheshire**  
*European Chlor-Alkali chemical producer & distributor (now Brenntag)*

- Re-structured & re-focused Hays / Elf Atochem water treatment chemical manufacturing plants:
- Coordinator for emergency response team (on-site & off-site incidents 'Chemsafe')
- Orchestrated set-up & direction of satellite operation at Corus (formerly British Steel) plant:
- Led commissioning team for new £250K effluent treatment plant at Hays:

**1993 - 1997      Process Engineer - Omya UK - Dale Rd, Matlock, Derbyshire**  
*Global calcium carbonate producer (formerly Omya Croxton + Garry Ltd)*

## MBA ACADEMIC HIGHLIGHTS

- Won top prize for analysis and co-presentation of a case study (PM module)
- Part of the winning team (from 10) in a program management simulation exercise (2 day event)
- Co-ordinated strategic innovation audit of Caltec (Petrofac), presenting the findings to the board

## QUALIFICATIONS

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|--|-----------------------|------|
| ○ Professional Process Safety Engineer (IChemE)  | 2015                  |      |
| ○ TUV Functional Safety Engineer (cert: 4851/12) | 2012                  |      |
| ○ IChemE SIL Registered (#0003)                  | 2015                  |      |
| ○ Chartered Engineer & Chartered Scientist       | 1997/2004             |      |
| ○ BEng (Hons) - Chemical Engineering             | Nottingham University | 1993 |
| ○ MBA (Cranfield); self-funded                   | 2006/8                |      |
| ○ OHSAS18001 Lead Auditor                        | 2013                  |      |
| ○ 4 'A' Levels and 8 GCSEs                       | Bramhall High School  |      |

Training course and degree certificates are available upon request.

## TOOLS

- PHA Pro, process hazards analysis software - advanced user (+ own license)
- Bowtie XP, bowtie software – advanced user (+ own license)
- PHAST, consequence modelling – advanced user
- Flaresim, flare radiation analysis – advanced user
- Pipenet, hydraulic modelling – advanced user
- Fault Tree + - basic user (+ own license)
- AFT Fathom, hydraulic modelling – advanced user

## STATUS

- Marital status: married with children (twelve and thirteen years' old);
- Driving Licence: Full, clean (own car)
- Interests: horticulture, cooking, running, rugby, football, travel, investing
- Languages: English (native), French (basic)
- Offshore Survival: BOSIET current (to Nov 2021)
- Volunteer IChemE Professional Process Safety Engineer assessor (report assessment and interview)