



## EGAN SAFETY SOLUTIONS

14 Lee Park, Sitecast Industrial Estate, Pouladuff, Cork. Tel:021-4966560 Fax:021-4966576

### **HAZOP**

A Hazard and Operability study or HAZOP is a written design risk assessment used to identify and resolve potential hazards and operability problems in new and existing process plants.

#### ***Legislative Requirements:***

Section 19 of the Safety, Health and Welfare at Work Act 2005, requires every employer to identify hazards at the place of work, assess the risks and document the risk assessment process.

Regulation 11 of the Construction Regulations 2006, calls for the co-ordination of design risk assessments across the various disciplines and one such methodology cited for the process industries is the HAZOP.

Under regulation 28 of the General Application Regulations 2007, Part 2 'Use of work Equipment', the employer has a duty to minimise risks where it is not possible to eliminate the source of the hazards. The HAZOP process can be used to minimise risks through the detection of dangerous situations and the subsequent design of controls, provision of safe systems of work and the specification of protective equipment.

#### ***ESS Methodology:***

ESS offers clients expertise in organising, conducting, chairing, and reporting HAZOPs in compliance with best practise techniques as recommended by the Institute of Chemical Engineers.\*

ESS has developed an inhouse software notation system for the taking of minutes otherwise known as scribing. The soft copy scribing system allows minutes and action items to be issued within 24 hours of a HAZOP session.

ESS can also offer a 'Chairperson only' service for client's who have their own HAZOP system methodology and require an independent third party Team Leader.

\* Tyler, B. Crawley, F. & Preston M. (2008). *Hazop, Guide to Best Practise*. 2nd Ed. IChemE

#### ***ESS Consultants:***

**Pat Kennedy** BE FIChemE CEng CMIOSH MIEI

Pat has 20 years experience in the Chemical Manufacturing Industry with such companies as Jacobs, PM, Roche, Pfizer. Lecturing in Chemical Engineering in CIT. Pat has extensive experience on chairing Hazops in chemical electronic, Waste water utility systems.



**Peter Costelloe** BE MSc MIEI AMIOSH

Before joining ESS in 2007, Peter worked for 15 years in process and project engineering roles in the pharmaceutical industry with Pfizer, Schering Plough, Novartis, Kvaerner and Fluor. Peter has acted as HAZOP chairman on a wide range of processes including chemical, biochemical process, waste water and utility systems.





## EGAN SAFETY SOLUTIONS

14 Lee Park, Sitecast Industrial Estate, Pouladuff, Cork. Tel:021-4966560 Fax:021-4966576

Caroline Harold BSc CEng MChemE, AMIOSH

Before joining ESS in 2008, Caroline worked for twenty years as a chemist, chemical engineer, project engineer and project manager in the pharmaceutical, chemical, electronic, mining and engineering consultancy sectors. She has worked for Intel, Novartis, GSK, Bristol Myers Squibb, Yamanouchi, Pfizer and Boart. Caroline has chaired HAZOPs on chemical and waste water systems.

