



# Curriculum Vitae

## MARK RALPH PLASTOW

Process Safety Specialist

BEng (Hons), MSc (Eng) CEng MChemE, Professional Process Safety Engineer

Date of Birth: 3<sup>rd</sup> September 1969 Age: 52

### **PROFILE:**

I am a Chartered Chemical Engineer, with a post graduate MSc in Process Safety and Loss Prevention from the University of Sheffield. I was recently awarded the status of Professional Process Safety Engineer by the IChemE. Currently, I am a Process Safety Specialist with ENRG Consultants responsible for all tasks relating to Fire Hazard Management, including consequence analysis for major hazard scenarios relating to Process Plant and Tank farms, terminals or marine installations. I am also on the Steering Committee of LASTFIRE, a group of oil companies and manufacturers looking at all matters relating to large atmospheric storage fires.

Prior to joining ENRG, I was the Process Safety Technical Specialist responsible for Process Safety for BP Well Operations in the Middle East, and North Africa. In this role I lead Process Safety Studies including HAZID, HAZOP, LOPA, Consequence Analysis and other Major Accident Risk studies. I work and coach the Regional Teams to ensure actions from these studies are suitably closed out. I also facilitate Occupied Portable Building Risk Assessments to ensure buildings are suitably located and designed in line with the risk and conduct Training sessions in all aspects of Process Safety related to the Wells organisation.

In my previous role, I was the Lead Process Safety Engineer for BP on an offshore platform project during the Execute phase of Engineering and into the Construction and Commissioning phases. One of my objectives was to produce an approved Offshore Safety Case for the project, to enable the facility to be started up in line with North Sea Regulatory requirements. Prior to this, I was the Lead Process Safety Engineer during the Front-End phases for a gas project that has been constructed and commissioned in the Omani desert. In both of these roles I was the Process Safety Technical Authority responsible for a team of Safety and Risk specialists and Fire Engineering specialists, responsible for all Process Safety and Fire Engineering deliverables.

Before BP, I worked as a Process Safety Specialist within Resource Protection International (RPI), responsible for carrying out Fire Risk Assessments related to Oil / Chemical plant facilities and Process Safety audits / assessments for our customers throughout the world. I was also responsible for leading courses in Process Safety and Tank Farm related safety in the many seminars that RPI.

In my early career, I was a Process Safety Coordinator for Total refining, based in Paris responsible for Process Safety at five non-French speaking refineries. I also represented Lindsey Oil Refinery (LOR) at national meetings of the UKPIA Major Hazards Working Group and the LASTFIRE project on behalf of Total Refining. I have a good understanding of UK and International regulations, associated with Process Safety and Emergency Planning including the COMAH regulations, as a result of writing the 2005 COMAH Safety report for LOR and preparing the Safety report for 4 new units built on the refinery in 2009. I have a wide

knowledge of Process Safety Management Systems within the UK and Europe as well as other parts of the world.

I have proven leadership skills as a result of managing a number of process studies for BP, RPI and LOR and managing Process Safety at the refinery. I am able to work as part of a team or on my own. I take great pride in my work and set myself very high standards.

## **MAJOR ACHIEVEMENTS:**

- Process Safety Technical Specialist for ENRG Consultants responsible for Fire Hazard Management and on the committee for LASTFIRE – projects include change out of firefighting foam systems for a number of installations around the world and Fire Hazard Management for a major Tank facility in Canada
- Process Safety Technical Specialist for BP Well Operations in Oman and North Africa
- Responsible for facilitating HAZOP, LOPA and HAZID studies
- Responsible for Occupied Portable Building studies both onshore and offshore in North Africa and the Middle East
- Responsible for carrying out Training Sessions in all aspects of Process Safety relating to Wells
- Lead Process Safety Engineer for BP on two major BP projects. One in the Front-End Design and Development phase and one in the Execute phase. For both projects, I was responsible for ensuring all project deliverables meet the BP expectations in terms of Design Safety to ensure a safe and reliable facility is developed, constructed and ultimately operated.
- Responsible for producing an approved Offshore Safety Case for the North Sea project, to enable the facility to be started up in line with North Sea Regulatory requirements.
- Responsible for developing a Safety Management System specifically for a Major Chemical site in Turkey whilst with RPI.
- Carried out a Fire Hazard Assessment for BP Husky Bay whilst with RPI
- Carried out Depot Audits principally for Fire and Emergency Response, in a number of countries including, India, Estonia and France, some of which were on behalf of BP.
- Developed the ALARP (As Low As Reasonably Practicable) demonstration methodology currently being proposed and applied in all refineries within the Total Group.
- Managed the Occupied Buildings Assessment for buildings at Lindsey Oil Refinery
- Responsible for the development of Human Reliability Assessments on the LOR site.
- Process Safety Engineer for the design of four new Process units at Lindsey Oil Refinery Site. In addition to attending all Safety reviews was also responsible for meeting all the requirements of the UK HSE in terms of COMAH requirements
- Responsible for developing Key Performance Indicators in relation to Major hazards at LOR and now within Total refining in general.
- Responsible for the re-writing and coordination of the 2005 COMAH (Control of Major Accident and Hazards) base report in line with the Seveso II directive for Lindsey Oil Refinery.
- Was the Study Manager and key to installing a Rapid Acid Dump System on the HF Alkylation unit at LOR. This project was the first of its kind in the world and a major safety improvement for reducing the risk from the unit on the surrounding population and environment.

## **KEY SKILLS**

- a) Hazardous Assessment
  - i. HAZID facilitator
  - ii. HAZOP facilitator
  - iii. LOPA facilitator
  - iv. BP Trainer for various Process Safety techniques
  - v. BP Major Accident Risk Studies
  - vi. Fire Hazard Assessment / Explosion Hazard Assessments
  - vii. Fire Safety audits for depot facilities (Tank Farms, Road Loading, Rail Loading, Jetties)
  - viii. Occupied Building Assessments
  - ix. Fault Tree and Event Tree analysis
  - x. Quantified Risk Assessment
  - xi. Cost Benefit Analysis
  - xii. Control Of Major Accidents and Hazards Safety Report
  - xiii. ALARP demonstration Assessment
  
- b) HAZOPs / Safety Reviews / P&ID Reviews
  - i. Conducted a safety review on all projects
  - ii. Organised and co-ordinated and chaired HAZID studies and follow-up actions for projects and facilities
  - iii. Organised and co-ordinated and chaired HAZOP studies and follow-up actions for projects and facilities
  - iv. Organised and co-ordinated and chaired LOPA studies and follow-up actions for projects and facilities,
  - v. Organised and co-ordinated and chaired SIL reviews
  - vi. On the interview panel for accepting BP approved facilitators for both HAZOP and LOPA
  
- c) Computer Literacy
  - i. PHA pro
  - ii. Phast (dispersion modelling)
  - iii. BP Cirrus (scenario modelling)
  - iv. TRAC (Instrumentation Reliability software and also can be used for LOPA assessments)
  - v. Reliability Software (fault and event tree analysis)
  - vi. Microsoft Office (Excel, Word, PowerPoint, Access, Visio)

## **CAREER PROGRESSION:**

September 1992 to June 2003	Total Lindsey Oil Refinery – Process Engineer
June 2003 to January 2009	Total Lindsey Oil Refinery – Process Safety Engineer
January 2009 to August 2010	Total Refining Head Office – Process Safety Engineer
August 2010 to June 2011	Resource Protection International – Process Safety Consultant
June 2011 to Feb 2013	BP Global projects Organisation - Lead Process Safety Engineer for an onshore Gas Processing Facility
Feb 2013 to Jan 2017	BP Global projects Organisation – Lead Process Safety Engineer - Clair Ridge - 2 Bridge Linked Offshore platforms to the West of Shetland - Execute Phase
Jan 2017 to Feb 2021	BP Global Wells Organisation – Technical Safety Specialist for North Africa and Middle East
Feb 2021 to Present day	ENRG Consultants – Process Safety Specialist

## **QUALIFICATIONS:**

April 2021 Professional Process Safety Engineer

January 2008 MSc (Eng) (Distinction) Process Safety and Loss Prevention - Sheffield University

January 1999 CEng MIChemE

June 1992 BEng (Hons) Loughborough (1992) 2(I) in Chemical Engineering

## **EDUCATION:**

September 2005 to September 2007: Sheffield University - Part time basis

October 1988 to June 1992: Loughborough University of Technology, Leics.

September 1981 to June 1988: Crown Woods School, Eltham, London