

## **RESUME**

**NAME** : Chandan Sengupta  
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**POSITION** : Lead Engineer - Technical Safety

**ACADEMIC QUALIFICATIONS** : Bachelor of Science, India; and  
Mechanical Engineering Diploma, India

**Contact number** : 6583647415

### **SUMMARY OF PROFESSIONAL EXPERIENCE**

Experienced Technical Safety & Loss Prevention engineer skilled in managing safety system engineering team, compliance and regulatory affairs engagements to support engineering, completion, production in the field of Oil & gas Front End Engineering Design (FEED) and Detailed Design for FPSO, offshore and onshore facilities.

### **Core Skill set**

- Management of resources and Safety Engineering scopes for timely deliver in line with the project budget and schedule. Extend support to project control in Lvl 1 & 4 plans;
- Organise and participation in HAZOP, HAZID reviews as safety engineer, Safety audit and Emergency shutdown philosophy;
- Coordination and verify the 3rd party deliverables for the safety studies i.e. Safety case, MAE, Bowtie workshop, Safety Critical Elements (SCE), EERA, Explosion Risk analysis, ESSA, Fire risk analysis, Performance standards, Passive Fire Protection technical notes, Dropped object study, Temporary refuge analysis, DAL specification and QRA;
- Engineering of firewater system (FW PIDs / PFD/ Line list), gas extinguishing system, fire & Gas detection systems, Cause & Effect matrix, PID review, Plot plan review, and 3D Model review. Perform FW network hydraulic simulation;
- Experience with execution of Proposal, Conceptual study, FEED & detail engineering of Technical safety system for upstream Oil & Gas Installations such as FPSOs & Fixed Process Platforms and Onshore Oil & Gas projects;
- Preparation of Hazardous Area Classification schedule & layout for explosive gas. Obtained EEHA Competency certificate;
- Prepare technical specification, Bid evaluation, Techno-commercial appraisal etc.;
- Address engineering issues and field design changes (Brownfield). General engineering service to clients;
- Installation, Start-up & commissioning of fire water system and equipment;
- Proposal and estimation of material, sizing & selection of associated equipment, man-hours estimate, preparation of technical offer and tender clarification;
- Escape route layout, safety equipment layout, PPE selection, Lifeboat selection;
- Good knowledge of the application of all relevant international codes and standards e.g. ISO, IEC, API, IP-15, NFPA, ASME, DNV, NORSOK, Total / DEP/ IOGP standards, Australian standards, NOPSEMA etc.
- FW network analysis using PIPENET, Familiar with Bowtie-XP & Flare radiation analysis using FLARESIM software.

**Period** : September 2019 – Present  
**Position** : Lead Technical Safety Engineer  
**Company** : Aibel Pte Ltd., Singapore  
**Projects** : **Offshore:**  
 Bacalhau FPSO Project, Equinor- Brazil  
 Jan 2020- Present
 

- Manage safety discipline engineering team for system and area engineering of the topside process modules.
- Support project and planning for CTR, Scheduling and engineering deliverables activities. Coordination with Company.
- Review safety studies i.e. FRA/ ERA, Dropped object studies, DAL specification, SCE & performance standard, Gas dispersion study, Fire & Gas detection layout & Cause / effect matrix, develop Fire water demand report and PIDs & line list, Fire water system hydraulic calculation etc.

  
 Ruche Well Head platform, Phase 1 (BW Energy)  
 Dec.2019 – Mar. 2020.
 

- Develop Fire & Gas cause & Effect matrix and fire & gas detector layout;
- Hazardous area classification schedule;
- Technical safety deliverables (firewater system, escape route layout, etc.);
- Review Flare radiation report.

  
 Marlim II, FPSO - General Engineering Service to YINSON  
 Sep 2019-Dec 2019
 

- Develop Safety design philosophy, Fire protection Philosophy, Passive fire protection Philosophy and Engineering support to Yinson.
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 BCM, Ichthys Project, Inpex, Australia
 

- Worked for the BCM tender/ proposal work. Prepare the CTR, coordinate with 3<sup>rd</sup> party safety study consultant (DNV) for formal safety assessment required for bid.

**Period** : February 2019 - July 2019  
**Company** : S N C Lavalin (Kentz), Qatar  
**Position** : Lead Engineer – Technical Safety  
**Projects** : **Onshore:**  
 CNG station and gas distribution station (Qatar Petroleum)

Responsible for:

- Manage the safety discipline team for the project;
- Develop Fire & explosion strategy, Fire & Safety Philosophy, Emergency preparedness and Rescue plan, Project HSE plan;
- Vendor management, Technical bid evaluation Support client to develop risk register, safety audit document;
- Coordinate 3<sup>rd</sup> party formal safety assessment i.e. HAZOP, HAZID, FERA, EERA, H&S risk register etc.

**Period** : September 2018 - February 2019

**Company** : Wood Group, Australia

**Position** : Principal Technical safety Engineer

**Projects** : **Offshore:**  
North Rankin A Platform, Brownfield project, (Woodside, Australia)

- Prepare Formal Safety assessment reports i.e. DORA, ETRERA, Passive fire protection document and H&S Summary;
- Organise HAZID review and worked as scribe for workshop;
- Constructability review, Passive fire protection document and Vendor management;
- Technical specification /bid evaluation.

**Period** : September 2017 - April 2018

**Company** : BHPB, Australia

**Position** : Principal Technical safety Engineer

**Projects** : Olympic Dam Mining Plant, (BHPB, Australia)

- Update the Major Hazard Facility supporting Safety Case according to the application of Regulations. Address Regulators comments.
- Participate the residual Risk Ranking task, Process safety Audit, Bow-Tie workshop, action tracking & close out, Critical control verification.
- Verify the preventive and mitigating controls are in place through Bow-tie workshop.

**Period** : December 2007 -February 2016

**Company** : Technip Oceania Pty, Australia

**Position** : Principal Technical safety Engineer

**Projects** : **Offshore:**  
Ichthys CPF project, (INPEX, Australia)

July 2014 – July 2015

- Seconded to Inpex field design office at Samsung heavy industries yard, South Korea.
- Responsible for coordination with 3<sup>rd</sup> party (DNV GL) and review/ comment of the Formal safety assessment document (MAE, SCE, ESSA, EERA, FRA, ERA, VPRA, SGIA, TRIA and DOA) required for the Condensate Rich MEG (CRM);
- Coordination with the IVB/ Class comments resolutions.
- Organise and attend HAZID (for CRM) Workshops and support the design Safety Case preparation for the Project.

Ichthys FPSO project, (DSME- INPEX, Australia)

Dec 2012 – Jun 2014

- Responsible engineer for the Loss prevention system engineering activities and Design of Complete Firewater network, Hydraulic simulation, selection of safety equipment and prepare Technical specification, Hazardous area classification, Escape routes and safety equipment layouts.

Offshore platform (CPP) project (Chevron, Australia) Aug 2009 – Nov 2012

- Responsible for FEED and detail engineering of Loss prevention system, sizing of Fire water pumps, FW system Equipment, Hazardous area classification schedule & Layouts, F&G philosophy & Layouts.
- Responsible for Life boat Package, Safety action close outs, and support the construction contractor (DSME).

Kupe Oil and gas Project – Offshore platform/Onshore (Origin, New Zealand). Dec 2008 –Jul 2009

- Responsible for Hazardous area classification, firewater system engineering review and address the Verification body technical clarifications.

**Period** : December 2006 - November 2007

**Company** : MMC Oil & Gas, Malaysia

**Position** : Lead safety Engineer

**Projects** : **Offshore:**  
Well Head Platforms

- Focal point of the safety engineering team for the ongoing Offshore/Wellhead platforms, onshore and brownfield projects.
- Organise Design safety review, Attend HAZOP/ HAZID workshop, Action close outs, Review 3<sup>rd</sup> Party prepared

QRA, safety case document and Loss prevention system detail engineering activities.

- Period** : June 2003 to November 2006
- Company** : Petrofac International, Sharjah, UAE.
- Position** : Deign Safety and Loss Prevention Engineer
- Projects** : **Onshore:**  
Kashagan Field Development Project – AGIP Company.  
- Responsible for loss prevention system engineering deliverables.
- Kuwait Oil Company, Kuwait.  
- Loss Prevention System Proposal work for various gathering station (22 GCs) & boosting station (BS).
- Rag & Flare mitigation Project, Qatar Petroleum.  
- Flare thermal and gas dispersion analysis to identify the safe zone. Update the HAC schedule and Layouts.
- Darquain Project, Iran – AGIP Company.  
- Fire water system engineering, F&G system and Hazardous area classification schedule/ Drawings.
- Great Mabruk project, Libya.  
- Focal point of HSE design for the Loss prevention proposal job.
- Period** : September 1997 to June 2003.
- Company** : Bechtel, India.
- Position** : Senior Engineer – Loss Prevention.
- Period** : August 1991- August 1997.
- Company** : M N Dastur & Co., India.
- Position** : Engineer.
- Period** : May 1981 - July 1991
- Company** : Mather & Platt, Calcutta, India.
- Position** : Senior Fire Protection Engineer.