

Integrated Process Solutions Sdn Bhd is the boutique engineering consultancy providing services in Process, Process Safety, Human Factors, Asset Integrity and Subsea & Pipeline Engineering. Providing proven quality and reliable services, through timeliness, competitive cost, and dedicated experienced personnel, are our fundamentals in ensuring YOU having peace of mind. YOUR success is our business.

### **PROCESS**

- Piping & Instrumentation Diagrams (P&ID)
- Process Simulation (Dynamic / Steady State)
- Line List
- Sizing (Equipment, Piping, Instrument, etc.)
- · Relief and Blowdown Study
- Process Safety Time
- Heat and Material Balance
- Cause & Effects Matrix
- Process Safeguarding Memorandum
- Operating Procedure Manual
- · Operating Procedure
- Safe Operating Limit / Envelope (SOL/SOE)

#### **PROCESS SAFETY**

- · HSE Design and Safety Case
- Control of Industrial Major Hazard (CIMAH)/Demonstration of Safe Operation (DOSO)
- Formal Safety Assessment (FSA) Studies
  - Fire and Explosion Risk Assessment (FERA)
  - Quantitative Risk Assessment (QRA)
  - o Building Risk Assessment (BRA) including Facility siting
  - Escape, Evacuation and Rescue Assessment (EERA)
  - o Emergency Survivability System Assessment (ESSA)
  - o Temporary Refuge Impairment Analysis (TRIA)
  - Smoke & Gas Ingress Analysis (SGIA)
  - Dropped Object Analysis
  - Safety Critical Elements & Performance Standards (SCE & PS)
  - Hazard and Effects Management Process (HEMP) Bow-Tie, ALARP, CAC, HER.
- · Loss Prevention Studies
  - o Firewater Design including Demand, Hydraulic, Surge.
  - Hazardous Area Classification
  - Safety Layouts and Drawings
  - Safety Equipment Datasheets and Specifications
  - HSE & Fire Protection Philosophies
- Safety Workshop
  - Hazard and Operability (HAZOP)
  - Hazard Identification (HAZID)
  - Safety Integrity Level (SIL/IPF) Classification
     Verification
  - Health Risk Assessment (HRA)
  - Constructability Review
- Process Safety Information (PSI)

### **FACILITIES ENGINEERING SUPPORT**

- Field Development Plans (FDP)
- Feasibility Studies
- Concept Select
- Front End Engineering Design (FEED)
- Detailed Engineering Design (DED)

### **SPECIALIZED STUDIES**

- Value Engineering
- Flow Assurance (Transient / Steady State)
- Surge Analysis
- Computational Fluid Dynamics (CFD)
- Fire & Gas Mapping Study
- Gas Dispersion & Thermal Radiation Study
- Acoustic / Flow Induced Vibration (AIV/FIV)
- Noise Mapping Study
- Corrosion Studies (CDBM, CMP)
- Reliability, Availability and Maintainability (RAM)
- Carbon Footprint Assessment

# **HUMAN FACTORS ENGINEERING (HFE)**

- HFE Screening
- HFE Awareness Training
- HFE Implementation Plan
- Valve Criticality Analysis (VCA)
- Safety Critical Task Analysis (SCTA)
- HFE 2D Drawings / 3D Model Review for LQ, CCR & Vendor Packages
- HFE Construction Site Verification

### **ASSET INTEGRITY**

- Asset Register
- Safety Critical Elements & Equipment Criticality Assessment (SCE & ECA)
- Performance Standards (PS)
- Failure Mode & Effects Analysis (FMEA) / Equipment Reliability Strategy (ERS)
- Maintenance Plan (MPlan)
- Bill of Material (BOM)

# **SUBSEA UMBILICALS, RISERS & FLOWLINES (SURF)**

- Concept Study
  - Subsea Engineering
  - Pipeline Engineering

# EXPERIENCED • RESOURCEFUL • TIMELINESS

**INTEGRATED PROCESS SOLUTIONS SDN BHD (735168-A)** 

Unit 8-2, Eight Setiawangsa, Jalan Setiawangsa 13, 54200 Kuala Lumpur. Tel: +603 4256 2275

Email: <a href="mailto:commercial@ipsmalaysia.com">commercial@ipsmalaysia.com</a>
Website: <a href="mailto:www.ipsmalaysia.com">www.ipsmalaysia.com</a>

