



## ENGINEERING SERVICES

### 1) Facilities Engineering

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| Process Engineering          | <ul style="list-style-type: none"><li>• Feasibility Studies, Conceptual/Detailed design, Hazardous Area Classifications, Operating Manuals, Input to Pre-Commissioning and Commissioning Procedures</li></ul>                     |
| Mechanical Engineering       | <ul style="list-style-type: none"><li>• Static/Rotating Equipment Specifications</li></ul>  |
| Civil/Structural Engineering | <ul style="list-style-type: none"><li>• Buildings, Drainage, Process Structures</li></ul>   |
| Electrical Engineering       | <ul style="list-style-type: none"><li>• Sub-stations, Cabling, Lighting, Generators</li></ul>   |
| Instruments Engineering      | <ul style="list-style-type: none"><li>• Distributed Control System (DCS) and Programmable Logic Controllers (PLC) Specification, Loop and Logic Diagrams, Shutdown Matrices, Field Instrument Design and Specification.</li></ul> |
| Piping Design                | <ul style="list-style-type: none"><li>• Routing Studies and Detailed Design, Supports, Isometrics, Stress Analysis, Equipment Layouts.</li></ul>  |

## **2) Risk Assessment and Safety Studies**

Chalpoint's specialist consultants are available to provide a diverse range of services for all aspects of Risk Assessments and Safety Studies. We have the capability to provide the following services:

- Safety Management System
- Hazard Identification (HAZID)
- Hazard & Operability (HAZOP) Study
- Fire and Explosion Analysis (FEA)
- ALARP Workshop and Cost Benefit Analysis
- Escape, Temporary Refuge and Rescue Analysis (ETRERA)
- Essential Systems Survivability Assessment (ESSA)
- Transportation Hazard Assessment
- Quantitative Risk Assessment (QRA)
- Control of Industrial Major Accident Hazards (CIMAH)
- Environmental Impact Assessment (EIA)

## **3) Pipeline and Associated Facilities**

At our disposal are experienced consultants for the design of pipelines, risers and mooring systems providing expertise in field development studies, analysis, conceptual design and detailed engineering.

## **4) Power System Engineering**

In affiliation with its partner, Chalpoint has the capability for the planning, engineering and design, operation and regulatory aspects of electrical power system.

The areas of services include transmission systems, distribution systems, industrial and marine power systems and other advanced transmission and distribution technologies.

Jointly, we offer a wide range of engineering services to assist clients requiring specialized expertise in areas including analytical studies, conceptual design, computer simulation, failure analysis and system monitoring. The services range from planning and feasibility studies, operations, engineering and design and applications of advanced technologies in transmission, distribution, industrial and marine power systems.