— Engineering Better Outcomes

Belcan

Belcan Advanced Solutions

provides support, advice, guidance, and design services to operators of COMAH sites

The Control of Major Accident Hazards (COMAH) Regulations 2015 help businesses to take necessary measures to prevent major accidents with hazardous substances. COMAH is enforced in Great Britain by a number of Competent Authorities:

- The Health & Safety Executive
- The Environment Agency
- The Office for Nuclear Regulation
- The Scottish Environment Protection Agency
- Natural Resources Wales

There are two levels of COMAH site: Lower Tier sites, which hold a relatively small hazardous inventory and Upper Tier sites, which have larger hazardous inventories and are considered potentially to be more hazardous.

Being familiar with legislation and regulations surrounding COMAH and applying our experience working in these environments enables Belcan Advanced Solutions to provide support, advice, guidance, and design services to operators of COMAH sites.

Augmenting this with our Functional Safety experience and exposure to (and management of) complex system interfaces, Belcan Advanced Solutions delivers Mechanical, Electrical, Instrumentation, Control and Automation, and Process design along with Systems Integration to provide clients with a fully integrated design and delivery service.

We take responsibility for providing front-end and detailed design, production of specifications, safety assessments, contractor management and construction assistance for the following areas:

- Process Design and Safety Engineering
- Process Control
- SCADA, Telecoms, and CCTV
- Safety and Protection Systems
- Control and Instrumentation
- Electrical & Cabling
    - Electrical Design Criteria.
    - MCC and UPS Design.
    - Main Circuits Cable Design.
- Firefighting philosophy, firewater pipework (including surge analysis), fire water pumphouse specification, and fire detection
- Fuel Service Pipework, including pipe support design, flow assurance and stress analysis
- Equipment specification (such as pumps, filters, and marine loading arms)
- Tie-In to existing infrastructure and Deconstruction of existing equipment

We have undertaken design for offshore, safety-critical and marine environments, including green and brown-field applications and incorporating piece-part and batch manufacturing as well as continuous process scenarios. Where required we provide close integration and cooperation to other third parties covering regular CDM risk, 3D model clash detection and other technical considerations. We model mechanical designs in 3D and integrate into our clients' federated 3D models using specialist recognised CAD software.

In these undertakings, Belcan Advanced Solutions will produce a basis of design and gap analysis, a Quality Management Plan, and a Functional Safety Management Plan to define the scope of works. We carry out site surveys to help understand the visual state and any existing equipment to be upgraded or replaced, as well as conducting interviews with the operations teams to gain familiarity of the operational requirements and routines. Relevant information and engineering judgements made following the site survey will provide input to the basis of design.

We can participate in or chair the HAZID and HAZOP workshops which identify gaps and concerns by other contractors in the project basis of design, to be assessed and addressed as part of the detailed design. The HAZOP process can identify areas where the operator requirements are not completely aligned with the contract requirements, which we will manage.

Belcan Advanced Solutions provides all these services either as individual work packages or as an all-encompassing wrap-around delivery to operators or major works contractors alike and has experience of successful delivery to gas network operators, LNG terminals, pipeline operators and defence installations in the UK.

See how Belcan's integrated and adaptive engineering services can work for you.

Contact Us

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