ABB has provided Control of Major Accident Hazards Regulations (COMAH) support to over fifty upper tier and lower tier process industries companies.

The purpose of the Control of Major Accident Hazards (COMAH) Regulations is to ensure that operators take all necessary measures to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any major accidents which do occur.

Upper tier (formerly top tier) operators are required to submit safety reports to the Competent Authority (CA) demonstrating that safety and environmental risks for the whole COMAH establishment have been reduced to a tolerable level. Lower tier operators must prepare risk assessments making a demonstration proportionate and appropriate to the safety and environmental risks, and whilst these are not required to be submitted to the CA these need to be available during CA inspections.

Key features of our approach
ABB can provide the full spectrum of COMAH support services ranging from specific expertise for particular safety report sections through to working with client organisations as a partnership to develop complete Safety Reports.

What we offer?
Safety report preparation
We can develop safety reports or sections of the report for operations new to COMAH or to support in 5 yearly updates of existing reports. We can also offer technical guidance/advice and peer review services.

Predictive aspects services
Our process safety specialists can provide support in the following areas:
- Major accident hazard identification using HAZID / Process Hazard Review (PHR) methodologies
- Consequence assessment based on toxic, fire and explosion modeling software recognised by the CA
- Evaluation of representative set of Major Accident Hazards (MAHs)
- Risk assessment support
- ALARP demonstration support - relevant good practice audits, risk reduction measure reviews and cost benefit analyses

Environmental aspects support
We can support clients in the following areas:
- Identification of Major Accident to the Environment (MATTE) scenarios
- Risk assessment support
- Firewater impact assessments
COMAH hot topic / intervention programme support
We can provide technical consulting / subject matter expertise in the following areas:
- Human factors / competency assurance
- Process Safety Management (PSM) support
- Process Safety Performance Indicator (PSPI) identification and measurement system development
- Ageing plant integrity management / Risk Based Inspection (RBI)

Other COMAH services
We can also provide support the following COMAH support:
- COMAH improvement programme support
- COMAH employee awareness support via bow tie diagram representation of major accident hazard scenarios and production of COMAH / process safety handbooks and associated training packages

Benefits
- ABB’s robust COMAH project management tools allow COMAH safety report preparation to be delivered using project management discipline to ensure effective resourcing plans can be developed and budget constraints met
- ABB’s COMAH gap analysis tool allows clear identification of areas of the safety report requiring attention
- ABB’s process safety specialists provide pragmatic and achievable recommendations as part of safety report improvement programmes aimed specifically at reducing the risk of major accident hazards

Why ABB?
ABB is able to offer expert coverage in all aspects of COMAH through its extensive in-house technical engineering capability, e.g. electrical, control and instrumentation, mechanical and civil engineering, etc. coupled with its process safety expertise in COMAH.

ABB’s process safety specialists share best practice gained from supporting COMAH operators across the process industries and exploit this best practice.

ABB’s COMAH team has extensive experience in COMAH hot topic areas, e.g. ageing plant and associated mechanical integrity challenges, human factors, competency assurance, etc.

ABB can provide the full spectrum of COMAH support services ranging from specific expertise for particular safety report sections through to working with client organisations as a partnership to develop complete safety reports.

ABB’s process safety consultants have a clear understanding of COMAH regulatory requirements and associated guidance with regular interaction with the CA on behalf of companies.

This experience has involved safety report preparation and review, specialist technical input and technical authoring services

Other areas
We can also support clients in the following areas:

Occupied buildings risk assessments
Our team of experienced specialists with operational heritage will use their experience to make pragmatic technical judgments and offer solutions that are cost effective. ABB can provide the whole solution to ensure occupied buildings are safe; from the risk assessment, to the implementation of management policies, right through to a structural review of the building, enabling the design of building improvements where necessary. By calling upon in house expertise from ABB Consulting we are able to design buildings to withstand explosion over pressure.

Safety Integrity Level (SIL) support
Our SIL support services include: training and awareness in the application of SIL and IEC 61508, technical workshops and practical examples of SIL determination, consultancy for specific client SIL determination, provision of appropriate risk reduction methodologies and identification of tolerable risks, provision of trip and alarm optimisation to either new or existing assets, software tools for SIL determination and maintenance of safety functions, independent assessment, verification and validation, expertise, gap analysis of existing safety procedures for compliance to IEC 61508 / 61511.