Late life, decommissioning and demolition management
Safe and cost effective management through the complete lifecycle
Overview

Businesses today are operating in increasingly dynamic and competitive environments, with growing demands for new ways to add value, reduce costs, improve performance and ultimately increase profitability.

Having to consider closing assets in the high hazard industries, or part of assets, due to their competitive position, is a reality of the current economy.

The end of life of an asset can be seen as a negative spend, but with detailed planning and preparation it will help to ensure maximum economic benefit to the client whilst maintaining legal compliance and reputation. At ABB our consultants, engineers and industry specialists work across a broad range of industry sectors, drawing on our unique heritage and wealth of experience.

Our capability and experience in this area has been built up over 35+ years’ in supporting clients through all stages of the process; from business turnaround to closure of a whole site and selling off the land, to mothballing and preservation (for restart, sale or delay) and a range of scales of decommissioning and demolition (part or all of a site, and to ground level or below).

The management of redundant equipment in ongoing operations is also important. Unmanaged equipment can be a safety risk to people, environment and ongoing operations, and have associated ongoing costs to manage.

The correct choice for an asset is not always clear and can be a complex decision dependant on rapidly changing circumstances - e.g. product markets, redundant equipment value, material prices impacting waste metal credits, legislation, etc. Reliable information is an important element in making sure that the right choices are made.

ABB’s risk based approach helps clients ensure their liabilities are being managed and maintains their reputation. ABB prides itself on working “with clients” rather than “for clients”.

ABB have world class safety performance in this area resulting in a RoSPA Presidents Award.
What ABB offers

Work prioritisation
- Full end of life estimates and optioneering support
- Work prioritisation considering SHE risk, liability, reputation, cost and time
- Built in flexibility to allow for managing liability and budgets

Hazards in Demolition (HazDem) assessment
- Chairing of HazDem assessments which is a risk based approach to preparation and planning of decommissioning and demolition
- End use definition, including enabling work to facilitate efficient demolition, planning restrictions and legal compliance
- Identification and development of client information in compliance with the CDM regulations
- De-risking the project to help result in a better SHE and economic benefit

Human factors support
- Human factors integration planning
- Engineering including critical task analysis and performance influencing factors
- Staff retention planning and knowledge management strategy
- Motivating staff in a de-motivating environment

Environmental management
- Site investigation, remediation design, Detailed Quantitative Risk Assessment (DQRA) and stewardship management assessment estimates
- Milestone payment process management
- Permit surrender modification or surrender application
- Planning obligation closure
- Land remediation
Design for decommissioning and demolition support
- Filling the role of CDM principal designer, removing foreseeable risks allowing for safe decommissioning and demolition
- Design of re-routes including C&I, electrical, mechanical and civil/structural
- Collation of pre-construction information pack
- Undertaking the client’s ‘engineer’ role

Enabling works support
- In house multifunctional engineering including control and instrumentation, electrical, drainage
- Process safety risk assessments for design re-routes/isolations, reducing risks to operating equipment
- COMAH amendments to ensure legal compliance
- Structural assessment’s in regards to asset removal and stability of remaining structures

Procurement support
- Technical and commercial validation of supplier competence
- Commercial tender specification development (including asbestos surveys, demolition contractors etc.)
- Supplier tender and commercial reviews
- Contract and agreement development delivering best commercial value

On-site execution management
- Filling the role of CDM principal designer/client engineer
- Planning and coordination of suppliers site execution
- Review of safe systems of work including lift studies and explosive/pre-weakening methodologies
- Workfront stewardship of demolition contractors

ABB exceeded our expectations in all areas, delivering a complex project on time, in budget, with no impact to on-site operations and most importantly not compromising health and safety.”

Tony Batten, Project Group Leader, Bayer CropScience
Why choose ABB?

**Why ABB?**
- Wide breadth of capability that offers a one stop shop range of services to support planning preparation, decommissioning & demolition projects
- Experience of designing for decommissioning; reducing inherent risks and business interruption whilst maximising economic benefit
- Ability to be able to ramp up and ramp down capability to meet peaks and troughs in project workload
- Extensive track record of preparation, decommissioning & demolition, including many team members who are ex-employees of demolition contractors
- A highly flexible approach and 5 stage risk based methodology, that allows us to tailor delivery to individual client requirements, and has incorporated industry learning over many years
- Accredited quality systems ISO9001, ISO14001, OHSAS18001

**ABB’s experience**
With over 35 years’ experience working on high hazard industrial assets, or removal of redundant equipment from operating assets. ABB has built up an in depth knowledge of industry best practices and key players, across a range of sectors including oil & gas (onshore and offshore), chemicals, power generation and pharmaceuticals.

Our operational heritage ensures we bring an independent approach and implement projects in a pragmatic way to minimise the impact on existing operations and maintain safety performance.

In addition to our core decommissioning and demolition management capability, our wide engineering expertise means we can integrate a broad range of skills, to offer an unrivalled total solution to our clients.

This assists clients with their late life, decommissioning and demolition projects, including, but not limited to; multifunctional engineering (electrical, control, instrumentation, mechanical, civil and structural) support to isolations and re-routes, civil and structural engineering support to pre-weakening, process safety support to design re-routes and isolations, environmental support to site investigation, remediation and permit surrender, integrity and inspection support to mothballing and preservation etc.

“The approach I saw being taken by ABB to deal with health and safety issues in demolition and remediation was impressive. Not only was the site a first class example of safe demolition, it was also clear that the work was being done more efficiently because of the way it had been organised”

Judith Hackitt, Ex-Chair of Health and Safety Executive (HSE)
Above: Proven 5 stage methodology, a risk based approach incorporating learning from the industry over many years.

Risk management
ABB have a definitive approach to risk management by reducing risk in the planning process, for example:

- The use of drones to assess the condition of redundant assets that may not have been inspected for a number of years
- None explosive methods of concrete breaking reducing vibration, noise and fly in live plant environments
- Vacuum excavation and sub-scan for site investigation greatly reducing the risk of damaging underground services

Benefits
- Ease of engagement with a supplier who can offer a cradle to grave solution
- Ability to ramp up / ramp down project demands for effective delivery with in-house resources for a tailored solution
- Delivery of regulatory compliance, managing risk and adhering to quality standards
- Understanding liability - obtaining a clean break
- World class health and safety compliance on all sites, reducing risk to employees and improving motivation
- Through our various methodologies we can reduce costs, maximising economic recovery
- ABB have a high level of corporate social responsibility, protecting client reputation