CTC demolition project

Demolishing a hazardous chemical plant while minimising the disruption to existing operations.

The client ceased production from the plant and wanted to demolish it, allowing the land to be re-used. There were several challenges to overcome:

- The structure being demolished had to be segregated from a live plant structure
- There were COSHH issues associated with organic residues in equipment to be demolished
- A number of process diversions and cable diversions in live chemical plant had to be carried out
- Electrical rationalisation in a live switchouse was required
- Building modifications had to be done whilst an office block was still occupied
- Drain isolations and diversions had to be completed

ABB were asked to manage the project on behalf of the client.
Solution
ABB managed the complete project, from defining the scope and execution strategy, through controlling project executions, to handling over a landscaped site. We began by completing HAZards of DEMolition (HAZDEM) studies to ensure all SHE risks were identified and understood. Plans were then put in place to manage the risks.

The scope for each stage of the project included:

Preparatory work for demolition
- 20 process and utility diversions within the boundaries of a live process plant
- Installation of a new pipebridge
- The strip out of 15km of electrical and instrument cabling from the switchhouse, MCC and control room

Demolition
Demolition of all above ground structures, equipment and pipework associated with the CTC plant and off plots, consisting of:
- CTC plant - containing 20 process reactors and vessels and two brick buildings
- Tank farm - containing 6 storage tanks
- Off plots - consisting of a tanker loading point and storage facility, plus a decontamination bay.

Removal of 5km of pipework and associated pipebridges

Remedial work after demolition
- Rationalisation of switchhouse and control room, including minor building works
- Drainage diversions and isolations
- Civil work to provide new laydown area on old site
- New street and floodlighting
- Landscaping
- Road resurfacing

ABB was involved in design, procurement, contractor management and project management in all phases.

Benefits
- Demolition completed in an effective way, minimising disruption to adjacent operations
- Potentially severe risks managed successfully
- Diversions, demolition and site final preparations all completed by one project team
- Project safety, health and environment issues and project progress well controlled