CHEMICALS CASE STUDY - CRODA CHEMICALS EUROPE, TEESSIDE, UK

Environmental permit
Surrender site condition report

ABB assisted Croda Chemicals Europe in the closure of their site at Wilton, Teesside by successfully completing an environmental permit surrender site condition report.

The Environmental Permitting Regulations (EPR) 2010 require UK operators to submit a surrender site condition report prior to site closure and permit surrender.

Croda Chemicals Europe shut down operations at their site in Wilton, Teesside in January 2010. The site operated under an environmental permit and a condition of the permit is a requirement to submit a surrender site condition report.

The report is needed by the regulator, the Environment Agency (EA), to support site closure and surrender of the permit. Deterioration of land quality identified in the report could lead to a requirement to carry out land remediation prior to permit surrender.

Croda required the report to:

- Be suitable for submission to the EA and facilitate an efficient surrender of their permit
- Include a cost-effective and fit for purpose site investigation to define closure conditions of soil and groundwater quality
- Allow closure and permit surrender with all site buildings, structures and process plant in place

Solution
ABB was engaged by Croda to carry out the study for the following reasons:

- Specific knowledge of the Croda Wilton Site, including completion of the baseline reports in 2003 for the original Pollution Prevention and Control (PPC) permit application
- Proven track record in PPC and EPR baseline and site closure reporting
- In depth knowledge of site closure and permit surrender processes
- Contaminated land site investigation experience, particularly in operational and redundant plant environments

ABB’s extensive knowledge and expertise of closure requirements and contaminated land investigations were used to develop and complete the following scope of works to define the condition of the site at permit surrender:

- Description of the site, permitted process operations and environmental setting
- Summary of the baseline soil and groundwater conditions at PPC permit application
- Record of changes to the permitted operations, measures taken to protect the land (and groundwater) and loss of containment incidents
- Description of decontamination and decommissioning works carried out by Croda on the site, including procedures, operations, records, etc.
- Collection and statement of site reference data, i.e. completion of the closure investigation, presentation of soil and groundwater quality data, and identification and explanation of changes between baseline and closure site conditions
- Reporting of conclusions, including statements regarding cessation of permitted operations, removal of all significant ‘pollution risk’ and an assessment of the final condition of the land

The local EA inspector was consulted regularly to ensure that all relevant information was incorporated into the final report to prevent costly project overrun and report re-issues.

The report made the case that the operations carried out during the life of the permit had not caused deterioration of the condition of land at the site and, as a result, land remediation was not required. The EA reviewed the report, agreed with the land condition assessment and accepted the surrender of the permit.

The project was completed to programme and within budget, without reportable incident or injury and to the satisfaction of Croda and the regulator.

Benefits
The ABB approach to the design and completion of the surrender site condition report brought the following benefits to Croda:
- The provision of a site investigation design that replicated the baseline exercise and minimised costly additional work on a congested and complex site layout
- The ability to demonstrate to the regulator that there had been no significant environmental incidents during the life of the permit. This was done by evaluating Croda operational data (including process and inspection reports) and proving that further more extensive investigations were not necessary
- Justification, using Croda decommissioning and decontamination data, that all ‘pollution risk’ had been removed and that:
  - The decommissioning and decontamination operations had not caused adverse impact on underlying soil or groundwater
  - There was no need to demolish and remove existing site buildings, structures and process plant
- Presentation of a comprehensive and justifiable record of the condition of the site at permit surrender to prove that the land was in a ‘satisfactory condition’ and that, as a result, land remediation was not required