

Case Study: Final Clearance Phase for Bayer in Widnes

Global innovator Bayer CropScience faced a major project to decommission and clear its vast 40-acre site at Widnes.



The world leader in the field of crop protection, crop pest control and plant biotechnology – with global sales of €6.4bn – had been manufacturing agricultural solutions at its Gorsey Lane site since 1966. However, in April 2009 the award-winning Widnes site, which once employed over 100 people, finally ceased production as part of the company's major restructuring programme.

Bayer CropScience site manager Steve Tynegate explained that the extensive preparation for this large-scale decommissioning project began almost two years earlier. "Recognising that a project of this magnitude required capabilities beyond our remit of expertise," he said, "we sought the knowledge of a specialist engineering team able to execute the work safely and cost effectively.



"It was clear that we needed to work with specialist project managers and to that effect, when the site closure was first announced in 2007 we engaged a construction design management (CDM) co-ordinator, RVA."

Working together on options and feasibility studies – to assess the most appropriate programme of works going forward – and the detailed contractor specification, a two-phased closure of the site was planned.

Steve Tynegate continued: "In April 2008 the 22-week decommissioning, dismantling and demolition of the PZ (Prochloraz) plant began. Under the guidance of RVA, a 10-man team from the appointed contractor deployed their fleet of high reach excavators to carry out the first phase. This even involved the bringing in of specialist equipment from the Philippines. With project management support of this complex operation we were able to focus on safely maintaining production on the other half of the site – our Ethofumesate (EF) plant."

When the EF plant ceased operation in April 2009, Bayer's extensive decontamination of this heavy steel-framed production facility ensued. Once complete, a 12-strong dismantling contractor team remobilised on site to commence phase two dismantling – a 24-week programme of works.

To begin this concluding phase, RVA specified that the contractor devise detailed method statements for the careful retrieval of process plant and pressure vessels weighing up to 15 tonnes. The operations manager for the appointed dismantling contractor elaborated: "This high-value equipment was salvaged without damage for re-installation at Bayer CropScience's Norwich site. This was an incredibly delicate asset recovery operation for which we assembled a specialist team of dismantlers.

"We inspected each vessel prior to commencing the disassembly to check the integrity of the glass lining, and the agitators were braced and blocked to prevent movement during eventual transportation. All ancillary pipework and valves were removed using cold-cutting techniques so as not to damage the glass, before we took out sections of roof and floor-way.

"Much of the work, down to the unfastening of bolts, was carried out by hand with the assistance of cranes to lift the vessels clear. Our utmost concentration and co-ordination was required at all times, especially when securing the vessels onto lorries for transportation to Bayer CropScience's Norwich storage unit."

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Having completed this meticulous salvaging operation the decommissioning team used a range of hydraulic excavators and high reach machines with 30-35m capabilities, to bring down the remaining brick-built administration buildings, warehouses, effluent treatment plants, labs and workshops.

Steve Tynegate summarised: "On paper, this project had presented a significant number of technical challenges from the outset. Yet the knowledge and experience that each party brought to the programme of works, resulted in a decommissioning team with a very comprehensive skill-set.

"The safe clearance of a site like Widnes is without doubt a complex and potentially hazardous undertaking that demands strong and continual communication between the client, RVA and the dismantling contractor."



In the current economic climate, organisations will understandably be focused on closing down their factories and plants in the most cost effective manner possible.

However they should not lose sight of the fact that decommissioning is not a straightforward process, and is certainly not something that should be rushed solely to achieve an accelerated exit. The fact that the Widnes project has been successful to date is to a great extent because Bayer CropScience actively acknowledged these factors.

Thanks to considerable experience in this area, RVA is able to take all of this in its stride, devising methodologies that avoid interruption to the function of live sites, while prioritising the safety and welfare of all operatives.

The Gorse Lane site, near to the location of the proposed new Mersey Gateway Bridge, has been purchased by Halton Borough Council for use as part of a wider regeneration of the Widnes Waterfront.

Decommissioning notes

Globally, the numbers of production facilities being mothballed, rationalised or permanently closed down is staggering. The issue therefore is how to deal with these closures safely; companies must not lose sight of their duty of care to do the job properly, especially as momentum gathers pace.

Just as one would devise a construction plan and assemble a suitably skilled project team to deliver that plan, you equally need a decommissioning strategy and team to safely fulfil your requirements. But because projects of this scale and nature tend to lie beyond the client company's usual remit, it becomes difficult to identify what useful in-house expertise already exists, and what is lacking. There will, without doubt, be areas of specialism that the company is unable to fulfil, as one cannot reasonably expect a skilled production manager to become a qualified decommissioning engineer overnight, and indeed no-one would want the company to 'go it alone', especially when external guidance is available. But what some organisations fail to realise is that, when managing a facility decommissioning, the careful use of existing engineering and production staff is in most cases a positive and value adding move – no one will know the plant better than the people that have been running it.

Therefore when planning for the inevitable, these key members of staff should be involved from the outset.

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