RVA GROUP

consultants for: decommissioning; decontamination; dismantling; demolition.

Case Study: INEOS found hidden potential in decommissioning projects

Seeking the advice of a specialist engineering consultancy can reveal previously unconsidered opportunities and considerable cost benefits, as INEOS ChlorVinyls found after appointing RVA Group to manage large-scale UK decommissioning projects in Barry and Runcorn.

INEOS ChlorVinyls – Europe's largest polyvinyl chloride (PVC) manufacturer – engaged sector-specific CDM coordinators and project managers RVA Group, to oversee the safe execution of these two major projects and ensure the maximisation of income from the resale of redundant plant and metallic arisings including high-value exotic alloys.

RVA commenced its role at INEOS ChlorVinyls' Barry site after manufacturing ceased in March 2010 as part of a consolidation of activities. Having planned to decommission and clean the site before handing it back to the landlord with the plant intact, INEOS sought RVA's isolation and decommissioning guidance. However acknowledging the financial implications of INEOS' proposed site exit strategy, RVA conducted a series of in-depth feasibility and option studies to investigate more commercially attractive routes for the client.

Utilising its vast knowledge and experience of asset recovery, RVA recommended that INEOS hand the site back as flat slab, as plant demolition and dismantling could generate an income from the sale of the process equipment – some had potential for reuse whereas other items (as a result of their high-value metallurgy) would create a positive income stream.

To demonstrate their confidence in the proposed alternative site exit strategy, RVA agreed to work for six weeks – at risk – to test the feasibility of their solution. If the project plan had proven unachievable, RVA would have waived all costs for work undertaken during this investigatory period.

However, as RVA had anticipated, the team was able to demonstrate that the project could be delivered with significant cost savings thus reducing the financial burden for INEOS.

As a consequence, RVA project managed the dismantling and demolition of INEOS ChlorVinyls' production facilities including process vessels, aluminium and concrete storage silos, a boilerhouse and three steel 1,500 cubic metre storage spheres. With a 27-man team on site, and kit ranging from excavators with shears and grab buckets to an ultra long reach machine safety was the number one priority throughout.

Colin Hopwood, INEOS ChlorVinyls' site services manager for Runcorn explains the reason for RVA's extensive involvement in the Barry site project: "RVA's role with INEOS in fact commenced with the team's development of a detailed redundant asset management review for our Runcorn site.

"The company drew upon its technical engineering experience to assess a number of plants, projected costs of removal, optimised sequencing and a potential rolling decommissioning programme for several areas of the 125-hectare top-tier COMAH site. The quality and integrity of this guidance not only led to us proceeding with the Runcorn works, but I also then recommended their services to a colleague heading up the Barry project."

Since the sequential decommissioning and demolition of five redundant chemical processing plants began on the high-hazard Runcorn site in August 2010, the site remained operational elsewhere. Meticulous planning and project coordination was therefore essential to ensure minimal disruption and utmost safety for all parties.

Priority was given to the complex dismantling of INEOS' four distillation columns, ranging from 40 to 60 metres in height, which had to be dismantled to a low height before the arrival of the year's high winds. However due to their proximity to high-hazard pipelines, and given the inherently dangerous nature of hot-cutting techniques, an alternative dismantling process had to be devised. Instead RVA oversaw the more time-intensive, but far safer alternative, of using high pressure abrasive water jets that ran around the circumference of the columns' cut lines to eliminate the flammable risks, before the top sections could be removed with a lifting nail attached to a 500t crane.

Colin Hopwood continues: "RVA's experience supported by impressive client references and commitment to offering independent, value-adding support, cemented our decision to choose their team."

RVA managing director Richard Vann concludes: "The scenario that we've seen at the two INEOS sites is one that is becoming increasingly common.

"Companies around the world are under great pressure to ensure that their sites are decommissioned safely, but at the same time cost-effectively. This financially challenging and inherently hazardous situation usually represents a step into the unknown for most site owners and operators, which is why specialist engineering expertise and experience is required. Our goal is always to maximise our clients' return on assets where possible and safe to do so."

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