



RVA GROUP

Specialist consulting engineering, safety and environmental management
for decommissioning; decontamination; dismantling; demolition.

Case Study: British 'Special Forces' Save the Day in Turkmenistan

It is a country few people have ever heard of – let alone worked in – yet UK consulting engineers at the RVA Group quickly had to acclimatise to the unfamiliar and remote surroundings of Turkmenistan, in response to a plea for help from oil, gas and power generation EPC contractor Lotus Enerji.



As part of their contract to build a new Delayed Coker Unit (DCU) at the country's main 10-hectare refinery in the desert-bound town of Turkmenbashi, Lotus Enerji were initially tasked with the demolition and clearing of two existing DCUs, to make way for the installation of new plant. But by promising to take down the multifarious structures – including 3 distillation columns up to 50m tall, 3 reinforced concrete storage silos weighing 2000 tonnes, a 1300 tonne reaction structure with 4 coke drums sitting on a 1000 tonne reinforced concrete bed and a 62m tall flue stack – in only 3 months, Lotus prejudiced the security of the overall contract and ability to meet their obligations to the client.

Having recognised the original programme for the demolition work was unachievable, Lotus sought the specialist capabilities of leading UK consultancy RVA. Analysing the critical path of the job and understanding the constraints – and dangers – involved in using the locally available equipment, RVA provided the necessary project management expertise.

Speaking of the call for assistance, RVA's managing director Richard Vann said: "Working in Turkmenistan has really opened our eyes as to the way the demolition industry has progressed here at home in the UK. Witnessing dated working practices, in a culture with significantly differing standards than we have come to expect in Western Europe, certainly presented considerable challenges.

"Modern construction equipment was nowhere to be seen, leaving Lotus' 140-man team – with clearly only rudimentary

demolition knowledge – using old tipper wagons and loading shovels to tackle this large-scale project. It was like being transported back 60 years.

"In the face of the immense capital required to logistically organise and procure state of the art demolition plant, such a labour intensive approach may have been cost-effective for the client, but they also acknowledged the health and safety risks were just too great.

"Coupled with the complexity of the structures concerned, the project simply posed too large a challenge for Lotus to manage single-handedly. Flexibility and a quick response on our part were therefore essential in order to turn this project around for the client.

"We rectified the inefficient sequencing issues and gave Lotus a much-needed insight into current demolition techniques and practices. The health and safety knowledge we gave addressed issues such as working at heights and unfenced edges, manual handling, management of hot works, loading and unloading scrap and the segregation of pedestrians and vehicles on site.

"Our solutions had to be quite innovative given the constraints we faced. Whilst we were working with kit and expertise akin to the demolition industry in the mid 1900s, clearly meeting modern day health and safety considerations was paramount for us.

"With a number of further Turkmenistan visits scheduled, we are confident that Lotus is now not only capable of completing the works in line with the project's objectives, but the contractor is also fully equipped to tackle this large-scale project in an efficient and safe manner."



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