



Project Data

Region: North-West, Liverpool & St. Helens

Client: Coleman & Co. Ltd /National Grid Property Holdings Ltd

Involved Units: Eneotech Environmental Ltd

Execution Time: March 2011 – September 2011

Contract Value: £250,000

Work Performed

Site setup

Dewatering of gas holders

Desludging of gas holders

Removal and recycling of oil from MAN holder

Cleaning of structures

Sludge dewatering and management of recovered sludge



Gas Holder Station Dewatering, Desludging & Oil Removal – North West England

Tank Dewatering and Desludging

Industrial Services

Gas Holder Station Dewatering, Desludging Works & Oil Removal - North West England

Eneotech Environmental Ltd (EEL) were asked by Coleman & Company Ltd to fulfil the role of hazardous waste management subcontractor on a multi-site gas holder demolition project. National Grid Property Holdings were the client and let a contract for 4no. gas holders at 3no. former gas holder station site in the North West of England. EEL have historically carried out many groundwater remediation projects for National Grid Properties. This project marked the second gas holder demolition project in succession where EEL has provided specialist subcontractor services to the nationwide former gasworks regeneration programme.

There were 2no. water sealed and 2no. water less oil sealed low pressure gas holders within the subcontract package. The works for the water sealed holders was to remove the historic seal water followed by recover and treat the sludge present at the base of the holders. The works within the water less oil sealed gas holders was to recover bulk seal oil and then to carefully clean all residual oil from inside the gas holder itself.

Dewatering the water sealed gas holders was carried out using one of EEL's bespoke gas holder dewatering systems. These systems comprise oil and sediment separator tanks, air stripping tank, sand filters and activated carbon filter. The plant was controlled by a bespoke control panel with integrated level sensors, motor starters and inline methane detector and are capable of treatment at high flows. Dissolved methane is a particular problem for gas holder seal water due to decades of contact between the water and natural gas. EEL's treatment systems have specific treatment stages designed to remove dissolved methane from solution. To monitor the performance of this methane removal and to provide confidence to the utility company and project team an inline methane detector was sited in the onsite sewer outfall chamber. This sensor had preset alarm levels to ensure that the concentrations presented in the discharge consent were never exceeded and that dangerous levels of methane did not build up with the confined space of the sewer system.

Once the water was removed sludge removal commenced. Due to the hazardous nature of the deep annulus trench (14m deep and only 2.5m wide) where the sludge was located the risk assessment ruled out man-entry. Sludge recovery was completed using a combination of DISAB airlift tanker work and a pole grab installed on an excavator both operating at the ground surface. Once the sludge was removed the liquid fraction was settled using our 250m³ onsite sludge settling tank. The settled sludge was then mixed with the fraction that was recovered using the pole grab and stabilised with a combination of cement and pulverised fuel ash (PFA) to allow the material to be disposed of as a solid rather than a high water content slurry.

Removing the seal oil from the pump reservoirs that were external of waterless oil sealed gas holders was completed effectively, and resulted in over 200,000 litres of lubrication oil being sent for recycling. Cleaning of the oily residues within the gas holder was carried out by confined space trained operatives equipped with intrinsically safe lighting and tools in what was a very challenging work environment. Staff were inducted to take regular breaks. Internal cleaning of both water less oil sealed gas holders was completed safe and timely manner to ensure demolition works progressed on time.

Eneotech operates in Europe as a certified waste disposal business with our own technical facilities and are licensed to recycle or eliminate wastes of all kinds. We offer a comprehensive range of modern services covering every aspect of the treatment and disposal of contaminated bulk materials. In many instances, we are able to accelerate the official regulatory processes, all with disposal security and integrity you can rely on.

We offer services to remove and dispose of difficult and hazardous wastes from current and former production facilities. These include specialist dewatering and sludge thickening and removal services.

Our company Eneotech Environmental Ltd. ranks as one of the most highly skilled and dependable services providers specialising in industrial waste management services, site rehabilitation, bulk waste disposal and service platform preparation across Europe.

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