Grain Power Station

Isle of Grain, Kent

CIVIL ENGINEERING | AGGREGATES

PROJECT DETAILS

Gallagher was employed as specialist contractor to carry out civil engineering works for Alstom Power Ltd, the turn key contractor responsible for delivering the new gas fired power station for EoN.

We worked in several distinct sectors and our work area covered a large physical area requiring high levels of supervision and large numbers of operatives. We were responsible for enabling works, temporary works and permanent works working within live power plants and green field locations. Our works included site clearance of buried obstructions and areas of contamination, installation of piling mats and hard standings, extensive sheet piling and ground retention measures, permanent CFA piling, reinforced concrete substructure and superstructure elements for the installation of 1.7 kilometres of twin 1.2m diameter pipes supplying heated water from the new power station to an existing liquefied Natural Gas Facility.

The pipeline is constructed across very poor alluvial ground that has seen many previous industrial uses and as such required innovative temporary ground improvement solutions and permanent piling methods. It was then installed throughout the existing facility in extremely close proximity to main cryogenic pipelines requiring exact agreed working methods to ensure the safe operation of the Liquefied Natural Gas plant at all times.

CLIENT:
Alstom Power Ltd

VALUE OF CONTRACT:
£20 million

LENGTH OF CONTRACT:
60 weeks

COMPLETION:
May 2011

In addition we undertook foundations for high pressure pipe runs, external roads and hard landscaping, cable and duct runs, earthing lines, foundations for bridges for overhead pipe runs etc, all on a large scale.

The project environment was closely controlled as we worked adjacent to and crossing cryogenic pipe lines and LNG distribution apparatus. Constant programming of activities was required due to the multi trade working. The scheme also required remediation of asbestos product from the existing ground. Security was a significant issue requiring employees to be vetted and thoroughly inducted. Health & safety requirements featured heavily with all works subject to pre-agreed method statements with permits to work issued (and returned) on a daily basis. Site rules were very strict.

Close cooperation between site, design engineers and the Gallagher quarrying team ensured the provision of 20,000 tonnes of stone crushed to the correct requirements together with 12,000 tonnes of cement stabilised sand provided as permanent backfill for these works. The overall programme for the power station was very challenging and consequently we worked multi-shifts and weekends in order to ensure that Alstom Power Ltd delivered the overall project on time.