

PAPER & PACKAGING

Kimberly Clark enlists RB Group for water tower refurbishment

RB Group was contracted by Kimberly Clark to deliver engineering services for the refurbishment of a water tower at its Northfleet manufacturing plant.

BACKGROUND

The project involved the removal of asbestos from opaque panels, replacement of all glazing, and painting of the water tank.



PROJECT SCOPE

The scope of the project included the removal of all asbestos in opaque panels, as well as the replacement of all glazing and painting of the water tank. Along with the replacement of all glazing and painting of the water tank. Additionally, we facilitated the preparation of the planning application to approval, ensured confirmation of all design calculations, and provided principal designer and principal contractor duties under the Construction (Design and Management) Regulations (CDM). Our team also managed the site installation process to ensure smooth execution.



CHALLENGES AND ACHIEVEMENTS

The refurbishment of the water tower presented several significant challenges. With the tower standing at less than 30 meters tall and featuring a water tank at its pinnacle, working at height emerged as a major obstacle. Moreover, upon conducting a thorough R&D survey, asbestos was discovered in the opaque panels across all 10 floors of the building, necessitating remediation by a specialist due to the stringent protocols surrounding the removal of such hazardous material.

To address the aesthetic aspect of the project, the tank underwent painting, which posed another challenge. Given the prohibitive costs associated with erecting scaffolding at such heights, rope access specialists were enlisted for the task.

Additionally, the presence of three mobile phone antennas on the tower necessitated compliance with electromagnetic field (EMF) regulations, requiring intermittent shutdowns of the antennas during the project's execution.

The completion of all works adhered strictly to relevant legislation governing various aspects such as working at height and working with asbestos. Comprehensive Hazard and Operability Studies (HAZOPs) and hazard reviews were conducted to identify and mitigate potential risks throughout the project. This included the

classification of hazardous areas to ensure the safety of personnel working in those environments. RB Group prioritized achieving compliance with a range of standards and regulations, including

| | |
|---|--|
| ✔ HSG281 – Electromagnetic Fields at Work | ✔ Health & Safety at Work Act HASAWA 1974 |
| ✔ HSG150 – Health & Safety in Construction | ✔ Management Regulations 1999 |
| ✔ Control of Asbestos regulations 2012 | ✔ The Workplace(Health, Safety & Welfare) Regulations 1992 |
| ✔ Working At Height Regulations 2007 | ✔ EH40 Workplace Exposure Limits |
| ✔ Lifting Operation & Lifting equipment regulations LOLER 1998 | ✔ Manual Handling Operations Regulations 1992 |
| ✔ Construction Design and Management Regulations 2015 (CDM2015) | |

| DELIVERABLE | CIVIL / STRUCTURAL | MECHANICAL DO | E & IC | E & IC DO |
|---|--------------------|---------------|--------|-----------|
| DESIGN (CIVIL/STRUCTURAL & MECHANICAL) | | | | |
| General Arrangement drawings for Planning | ✔ | ✔ | | |
| All Structural calculations, sizing and data sheets checked | ✔ | | | |
| Scaffolding design & Calculations confirmed | ✔ | | | |
| R&D Surveys completed | ✔ | | | |
| General arrangement drawings for Construction | ✔ | ✔ | | |
| DESIGN (E & IC) | | | | |
| Power & Lighting schedule and data sheets | | | | |
| Cable Schedule and loop drawings | | | ✔ | ✔ |
| Electrical wiring diagrams | | | ✔ | ✔ |
| Procurement / tender package | ✔ | ✔ | | |
| CDM / SITE WORKS | | | | |
| Creation Of Project Schedule | ✔ | ✔ | ✔ | |
| Creation of PreConstruction Information | | ✔ | | |
| Creation of Design Risk Matrix | | ✔ | | |
| Principal Contractor | | | ✔ | |
| • Construction Phase Plan | | ✔ | | |
| • Construction Phase Risk Assessment | | ✔ | | |
| • Site Induction | | | ✔ | |
| • Contractor Evaluation | | ✔ | ✔ | |
| • Verification of RAMS | | ✔ | ✔ | ✔ |
| • Site Security | | | ✔ | |
| CIVIL AND STRUCTURAL | | | | |
| Scaffolding design | | ✔ | ✔ | |
| Glazing design | | ✔ | ✔ | |
| Specs / prelims | | | ✔ | |
| Procurement / tender package | ✔ | | ✔ | ✔ |



THE BENEFIT

Throughout the refurbishment process, RB Group maintained a **flexible relationship with the client**, keeping them informed of any issues encountered during both the planning and installation phases. **Ensuring compliance with health and safety regulations**, particularly around the hazardous waste removal and the protection of personnel working near the microwave antennas, was paramount. Despite these complexities, **all works were successfully completed within the specified timeframe.**

ABOUT RB GROUP

RB Group provides professional engineering consultancy, design, project, and construction management services across a wide range of sectors from Pharmaceuticals to Heavy Engineering – applying vision, purpose, and cutting-edge expertise.

We undertake every stage of a project lifecycle from initial conception to commissioning, both globally and within the UK.

Our highly skilled and qualified Process, Mechanical, Civil and Structural, HVAC, CDM, Electrical, Control & Instrumentation Engineers undertake engineering projects of all sizes. These range from smaller scale projects such as plant modifications, expansions,

and upgrades, through to multi-million construction projects. We apply the same levels of client focus and professionalism to every project, regardless of size.

Our high proportion of repeat business coupled with an organically growing new customer base is no accident and reflects our unique approach that make us stand out in the market-place.



FIND OUT MORE

- ✔ Our experienced engineering team could support you on your next project. Why not contact Genghis Perriman our Business Development Manager to discuss further for a no-obligation discussion?

Phone
01622 858387

Email
mail@rb-plant.co.uk

 rbplant.com



RB PLANT CONSTRUCTION LTD.

RB House The Square Lenham Maidstone Kent ME17 2PG

+44 (0) 1622 858387

mail@rb-plant.co.uk

rbplant.com