

NETWORK RAIL WEST MIDLANDS SIGNALLING CENTRE (WMSC) - POWER SUPPLY UPGRADE

Project Summary

Client: Network Rail

Timescales: July 2013 – August 2014

Linbrooke Disciplines: Power, Signalling, Telecommunications

Linbrooke Services Utilised: Project management, design, survey, installation, test, commission

Customer Objective

To increase the power supply resilience at the West Midlands Signalling Control Centre (WMSCC) and adapt it to function as an integrated signalling control centre for the West Midlands area.

Project Overview

As part of the West Coast Route modernisation, Linbrooke were selected to modify the West Midlands Signalling Centre (WMSC). We were required to provide a detailed design for the modification of the building's power supplies in order to provide greater reliability and prevent power supply interruptions to the functional signalling equipment.

Network Rail's primary concern was for the project to be carried out without any disruption to the signalling centre or train movements.

"As a project delivered under challenging circumstances and requiring both collaboration and strong initiative, Linbrooke worked fastidiously to ensure a successful delivery of mission critical works."

- Peter Thompson, Linbrooke, Managing Director Rail Power

Linbrooke Project Scope

Linbrooke were required to carry out a series of mission critical works under challenging circumstances. Without meticulous precision and dedication, all trains in the midlands would have stopped, causing multiple issues and customer dissatisfaction.

Linbrooke were able to adhere to this specification and they completed all works successfully – our scope of which included:

- Detailed non-intrusive survey of installation
- Detailed design for the upgrade of the distribution system
- Procurement and installation of all distribution equipment including:
 - 1 x 120kVA three phase UPS and associated battery strings
 - 1 x static transfer switch
 - 11 x automatic changeover panels
 - 2 x signalling transformers
 - 2 x 110V distribution boards
 - 1 x switchboard containing an Uninterruptible Power Supply (UPS) bypass and wraparound equipment
 - Replacement of batteries to the existing UPS system
- Modifications to the Ancillary Monitoring Point (AMP) desk alarms
- Modification of the new alarms to the building services trend system
- Migration of single supply circuits to new dual supply distribution board
- Modifications to signalling records and provision of Signalling Maintenance Testers Handbook (SMTH) staff

Benefits of working with Linbrooke

During the design phase it was found that the outline design could not be achieved due to Network Rail approved equipment not being available at the required voltage. After collaborating with our client, Linbrooke proposed a new approach that allowed fully approved equipment to be installed with very little impact on cost whilst maintaining the overall integrity of the original designs.

To ensure successful project delivery, we consistently provide:

- A strong, detailed understanding of the technical scope
- A robust belief in collaborative working
- A full turnkey delivery of telecoms, signalling, power, civils and track which ensures multidisciplinary efficiency
- An impeccable health and safety record
- The ability to adjust to project alterations rapidly – and provide alternative solutions when required
- A highly skilled and experienced work force
- Strong relationships with a number of industry experts