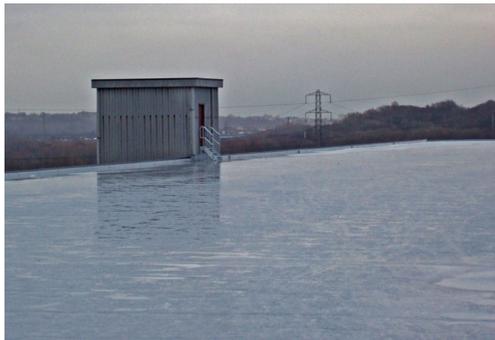


# Single-Ply Roofing

## Kearsley Sub-Station, Greater Manchester



### Background

Located on the banks of the River Irwell and the former site of Kearsley Power Station (built in 1920, and demolished in 1985) National Grid’s sub-station at Kearsley is located to the north west of Manchester city centre and is responsible for handling over 400,000V of electricity.

The roof to the sub-station was comprised of an existing bituminous waterproofing system above fibreboard insulation and a vapour control layer. The initial scheme proposal was to provide a new waterproofing membrane as an overlay to the existing system, however following further investigation, elements of the existing membranes were found to contain asbestos, which changed the scheme to a complete removal and replacement. This change would pose a particular challenge as the height of the building was over 20m and wind conditions were very strong.

### Challenge

As a result of the presence of asbestos, the building’s height and present contents, the programme of works called for exceptional levels of health and safety. A major scaffold design was adopted along with a specialist waste disposal chute to ensure all materials were removed from the roof in a safe and contained manner, eliminating any possible danger of materials blowing away in the very strong winds.

### Solution

The replacement waterproofing system specified incorporated a new bituminous vapour control layer, 25mm polyurethane insulation and Monarplan GF Fleeceback PVC membrane fully adhered. During the installation works it was the responsibility of the site supervisor to enter the sub-station to form temporary exclusion zones beneath the different sections of roof as they were completed. Such was the high standard of site and safety management by installing roofing contractor, MAC Roofing & Contracting Ltd, that all works were successfully completed on schedule without any interruption to operational use of the sub-station prompting the Client to award them top marks in their project completion review.

<b>Project:</b> <i>Kearsley 275kV Sub-station</i>
<b>Area:</b> <i>7000 m<sup>2</sup></i>
<b>Completion Date:</b> <i>April 2012</i>
<b>System:</b> <i>Monarplan GF Fleeceback</i>
<b>Client:</b> <i>National Grid plc</i>
<b>Contractor:</b> <i>MAC Roofing &amp; Contracting Ltd, Wirral</i>