

Trafford Park, Manchester

Our Services

- Quantitative Risk Assessment
- Design Review and Rationalization
- Validation and Certification



Gas Protection Measures

CGL was asked to undertake a review of gas protection measures at the former Adtranz site in Manchester. The site, which had been remediated for warehousing development, had hydro-carbon contaminated materials resulting from historical usage and was still affected by soil gas derived from peat and degradable material in the Made Ground.

Full gas protection measures had been proposed by the designer, including the installation of a fully ventilated soil and membrane system.

As the remediation of the soil had included the bioremediation of the Made Ground to remove hydrocarbons and degradable material, and the underlying peat had been removed, **CGL** considered that the sources of gas previously recorded at the site had effectively been removed. This could potentially allow the protection measures to be rationalised to take account of the reduced risk.

CGL reviewed all available gas data and undertook a quantitative gas risk assessment, in accordance with CIRIA 152 protocols, to assess the need for the conservative design.

Review of this work with the local environmental health department led to the resultant gas risk being assessed as negligible, based on gas dispersion characteristics of the warehouse units.

This allowed the gas protection measures to be reduced to a gas membrane only, thus removing the passive vent matting from the scheme design. This led to major cost and programme savings for the client. **CGL** subsequently undertook validation monitoring of the membrane installation, together with certification to meet the requirements of the regulatory authority.

Client: Marshall Construction (West Yorkshire) Ltd