

Electrical Substation Sites - Contamination Surveys and Risk Assessments National Grid



National Grid is taking a proactive approach in learning more about their sites. Working with National Grid, Entec is helping to establish the environmental risks associated with the long-term use of oil-containing electrical equipment at a number of its high voltage substation sites.

A number of areas were identified for investigation including - the contamination of surface water and groundwater, off-site migration, damage to adjoining land and the health and safety issues for its staff and contractors.

Entec has completed investigations at 20 National Grid substation sites. The methods and protocols employed for a number of activities had to be strictly controlled, given the nature of the 275 and 400kv high voltage equipment involved.

The projects involved combined Phase I and II assessments by collation of desk study data to determine environmental sensitivity followed by site investigations, sampling, testing and chemical analysis. Compounds of particular interest included PCB's, petroleum products and mineral oil.

The data collected was used to undertake qualitative and quantitative risk assessments using the source-pathway-target methodology.

Reporting included recommendations for remediation to address potential environmental risks and estimates of remedial costs. Entec also undertook drainage monitoring surveys to assess the quality of discharges and the performance of Class 1 oil separators.



*Establishing the environmental liabilities
associated with oil-containing electrical equipment*

