Case study



The Maxol Group is Ireland's oldest and foremost independent oil company. The Maxol brand covers a network of 214 service stations on Ireland and Northern Ireland. The company operates a stringent standards programme throughout its activities and as such always seeks to improve the safe operation of their service stations.

In 2009 one of Maxol's service stations reported problems of audible static discharges. The problem was that during the filling of the underground tanks an audible and repeated 'clicking' could be heard in the fill box. The clicking ceased when the filling process was completed. Concerned, Maxol contacted KPS immediately to discuss potential causes and their immediate resolution.



The station was operating with nonconductive piping and it was quickly concluded that there was a need for grounding and bonding of the metal work surrounding the pipework in the station's fill boxes.

In early 2010, whilst filling the underground tanks at evening time a lorry driver observed a spark jumping some 50 mm (indicating a charge of approx 50,000 volts) in the fill box. Immediately Maxol closed the station until further analysis could be undertaken and measures to eliminate the problem identified.

Maxol agreed not send further fuel deliveries to the station whilst the problem persisted and called out for quick action to rectify the problem, again contacting KPS and the installation company.

KPS commissioned the services of an independent electrostatic consultant, who concluded that the problem was likely to be related to static discharges from the non-conductive pipework used at the station. Previous grounding of all isolated metal work had not rectified the problem.

The consultant went on to recommend immediate replacement of the non-conductive pipe with conductive pipework, which would then dissipate any static electricity to earth.

The pipe replacement work was immediately undertaken by the installers Tokheim and KPS working in close collaboration with Maxol. Since the installation of KPS conductive piping, the Maxol station has had no further incidents of sparking and the station is fully operational with a 'clean bill of health.' The workplace for installers and other staff is now compliant with the ATEX 1999/92/EC Users Directive.

Maxol is now leading the way across Ireland to ensure the safe operation of its service stations and is working in close collaboration with both its pipe supplier and installation company.

Sweden, 31st March, 2010

