

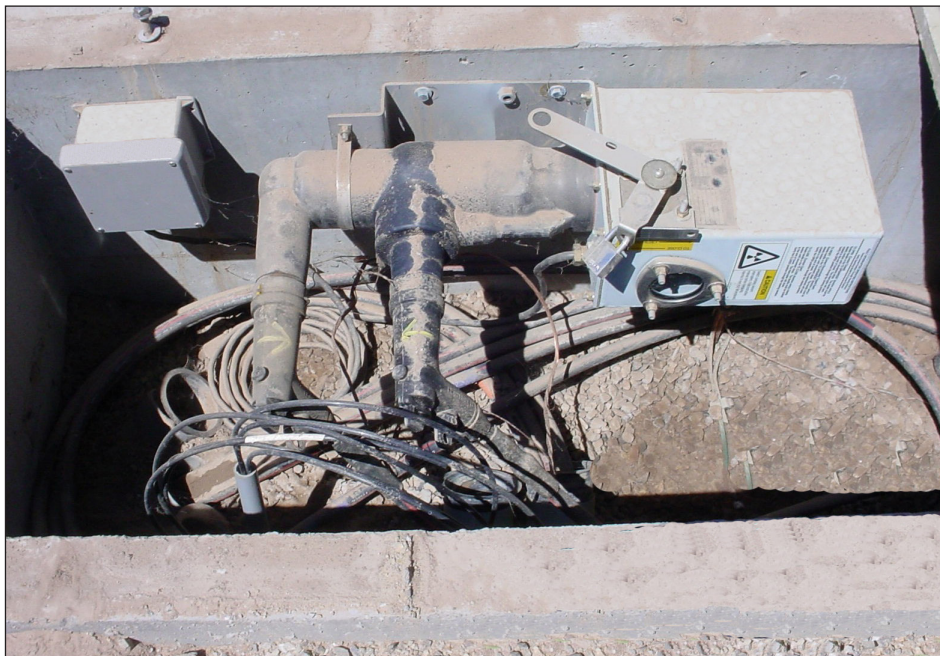
# Underground Single Phase Protection

### Challenge

The utility is undergoing efforts to increase service reliability and reduce outage time for their customers fed by underground cable equipment. Padmount load break switches are used as sectionalizing points for the underground three phase circuits however the utility decided to incorporate single phase protection devices wherever single phase loads were tapped. Rating requirements were for both 15.5 and 27kV, 200A continuous current. Because much of the cable ran through residential areas, the utility wanted as small a vault as possible with top access to the equipment. They also wanted the capability to reset the device from above ground to quickly re-energize a faulted circuit.

### Solution

After evaluation of the requirements, the utility decided on G&W Electric Trident® single phase, solid dielectric fault interrupters. The compact modular construction permits mounting in a small, shallow vault with easy access for hookstick operation from above ground. A manual operation handle permits resetting of the vacuum interrupter thereby eliminating the cost of fuse replacement and stocking of different fuse types. An electronic control permits a wide range of overcurrent protection curves and can be easily changed in the field if future requirements change. The device is also capable of complete submersion.



*G&W Electric's 15kV, 200A solid dielectric switch minimized the vault size requirement and offered convenient access to the manual trip handle for easy hookstick operation from above ground.*