

Risk assessment of fluctuating stray current interference on buried steel pipelines with cathodic protection applied

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Abstract

BS EN 50162:2004 states the usefulness of current probes to assess fluctuating stray current interference on cathodically protected steel structures. This paper provides risk assessment of combined d.c. and a.c. stray current interference on buried steel pipelines with cathodic protection applied using current probes described in BS EN 50162:2004. The most significant feature is data acquisition every 2 seconds on average, maximum and minimum d.c. and a.c. probe currents together with probe instant-off potential with high data sampling rate of 0,1 ms. Presented measurement technique is extremely effective to assess fluctuating stray current interference due to operation of d.c. traction systems.