AC MITIGATION SOLUTIONS

Unparalleled expertise in AC interference detection and mitigation

corrpro®
an AEGION® company

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Why you need AC mitigation

It is increasingly common for new pipelines to be constructed in existing high voltage overhead power line rights-of-way and for new power lines to be constructed near existing pipelines. All pipelines are being impacted—petroleum, natural gas, water and wastewater.

When underground metallic pipelines are in close proximity to high voltage power transmission lines, they are subjected to the electromagnetic field created by the alternating current (AC). The potentially devastating effects of power line operations include compromising personnel safety, equipment malfunction and negatively impacting pipeline integrity. AC voltages greater than 15 volts are a shock hazard, raising safety and liability concerns. While rare, pipe failures caused by excessive voltages during power line fault conditions have been reported.

AC interference can result in severe corrosion of metallic pipelines. Depending on soil characteristics and other factors, the corrosion can occur at voltages less than those considered tolerable (relative to electrical safety). Extensive AC-induced corrosion is becoming more common, particularly for pipelines that have operated in collocated rights-of-way for many years without appropriate mitigation. In one instance, severe AC-induced corrosion damage was detected in less than four years after the pipeline was put into operation.

Corrpro—the AC interference mitigation expert

Corrpro is the established leader in corrosion control and has unparalleled expertise in AC detection and mitigation. With experience protecting thousands of miles of pipeline and ancillary facilities every year, Corrpro has confidently handled AC interference issues ranging from one pipeline and one power line in a simple cross-country setting to multiple pipelines and multiple power lines in congested urban corridors. Corrpro pipeline projects involving AC interference and mitigation have ranged from a few miles to over six hundred miles.

Corrpro's registered professional electrical engineers and NACE International certified corrosion specialists can predict AC effects on pipelines to design and construct suitable mitigation systems. This includes extensive hands-on expertise and state-of-the-art modeling capabilities. Corrpro has provided assistance to countless pipeline operators as well as power companies in an effort to minimize the AC interference directly at the source by enhancing the power line design.

Corrpro's state-of-the-art AC interference mitigation designs use a combination of off-the-shelf equipment and unique components developed by Corrpro engineers. AC mitigation needs are integrated with cathodic protection and other corrosion control systems to realize the greatest return on investment. A thorough understanding of our clients' needs is an integral part of the process.

AC corrosion

AC/DC close interval survey

AC mitigation

A total solutions company

Corrpro has taken a leading position in developing industry standards and evaluation procedures in AC interference mitigation. As a total solutions company, Corrpro has the capability to meet all of your AC safety and corrosion control needs. Similar to Corrpro's full offering of services in cathodic protection and protective coatings, we routinely provide the following AC interference related services:

- Pre-design evaluations
- Computer modeling
- Mitigation designs and materials
- On-site QA/QC
- Full turnkey construction
- System start-up and baseline testing
- Training
- Operation and maintenance
- Detection and resolution of AC interference safety and corrosion problems

An ISO 9001:2008 Certified Company (U.S.)

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