G&W Electric

Engineered to order. Built to last.

Is Your System At Risk?

Five Symptoms of Failure

The High Cost of Failure

Emergency outages require immediate equipment replacement, which can cost upwards of $90 million to complete.

Your Potential Issue

Between 1930 and 1980, oil- and gas-filled pipe type terminations were installed with the expectation of a 100-year lifespan. However, the terminations for these pipes were designed to function for 40 years and, without proper maintenance, these terminations can fail. If they do, they can bring down the entire system.

The closure of many manufacturers of these pipes and terminations has left few physical records and little, if any, follow-up maintenance. If your system relies on these terminations, it may be at risk.

We'll explain in five steps how to identify if your system includes pipes and terminations from this period, along with what you can do to avoid system failure through inspection and possible replacement of this equipment.

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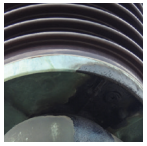
What's Putting Your GIS and Outdoor System At Risk?



REASON #1

Termination Leaks

Leaks frequently occur at the cap plate, where the body and porcelain meet, or where the body meets the baseplate of a termination. In addition to contaminating the environment where your termination is installed, leaks can allow moisture into your system, diluting the dielectric oil and putting you at risk of failure.

REASON #2

Broken Insulators

A broken shed can allow for electricity to travel through the center of the insulator. Broken stand-off insulators can indicate unseen mechanical damage, and can get rid of the separation between the system ground and the cable ground.

REASON #3

Porcelain Glaze Deterioration

Deteriorated porcelain glaze indicates external arcing or flashovers, which can put your system — and everything around it — at risk of fire.

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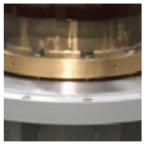

REASON #4

Termination Leaks

Abnormalities in your dissolved gas analysis can indicate arcing or electrical activity inside your termination, and can also signify poor system grounding.

REASON #5

Deteriorating, Torn or Missing Sponge at Cementing Flanges

Any issues regarding cementing flange sponge can indicate crumbling cement between the flange and porcelain, which must be addressed to prevent failure from high system pressure.

Additional Equipment-Specific Reasons

GIS

- Damaged surge arrestors

OUTDOOR

- Increasing power factor on capacitor graded terminations
- Capacitance reading ±30% or larger from installation value

Get Proactive with G&W Electric

If you're unsure about any of the measures outlined here, or if you need assistance, G&W Electric is here to help. Our experts have extensive experience in replacing aged terminations, and can offer support and guidance at every step — from developing your inventory program to finding any missing information on your current system. Contact us today to get started.

Proactive Measures

Modernize Your System

Updating your equipment is the most comprehensive measure you can take, resolving any and all issues within your system while also safeguarding against future failures.

Understand Your System

Take note of the equipment you have installed, the age of your components and, if possible, records such as operation manuals, cable information and drawings of installed units as well as their serial numbers.

Take Inventory of Spare Parts

Check what spare parts you currently have on hand, and order anything that may be missing. Additionally, identify any incomplete kits or visible damage, and note any units or parts that may be stored incorrectly.

Develop A Robust Emergency Stocking Program

Fill the gaps in your system's setup and consolidate the amount of products you have to store while maximizing the number of circuits a spare can work with.

The G&W Electric Advantage

G&W Electric engineers draw on extensive experience to ensure your terminations are installed correctly, and save you time with a three-day installation process for three terminations. Our engineers assist you at every turn, providing guidance on everything from maintenance for aging systems to developing a robust spare parts program. And with our active involvement in a variety of electrical associations, including IEEE and CIGRE, you can rest assured your equipment is installed with true expertise.

Meet Our On-Site Expert

When you modernize your system with G&W Electric, you'll be backed by an expert team led by Kate Thompson, Product Specialist for High Voltage Cable Accessories. From technical support, maintenance and replacement recommendations to assistance identifying aging terminations and guidance on stocking recommendations, you'll have an entire team behind you, ready to help you keep your system running at peak strength.

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For additional information please send an inquiry to info@gwelec.com