

Transformer Dryouts & Oil Processing

DRYER TRANSFORMERS = LONGER ASSET LIFE

Waukesha® Service is ready to respond when your transformer is ready for oil processing or needs to be dried out. We can handle not just Waukesha® units, but also those of most other transformer suppliers worldwide. From draining, storing, vacuum degasifying, dehydrating and reclaiming oil to pulling vacuum on a transformer, Waukesha® Service has the equipment and personnel you can trust with one of your most important assets!



TRANSFORMER INSULATION DRYOUTS

A variety of factors can cause higher than normal amounts of water to condense in a transformer's paper insulation. Over time, this excess moisture can cause transformer failure.

About 99% of water in a transformer is held in the paper, very little in the oil. Paper (cellulose) insulation is made up of long chains of hydrocarbon molecules. Water, acid and oxygen can cause these chains to break into shorter chains (paper degradation) with less tensile strength. When paper degrades, water becomes a by-product as do furanic compounds—higher furanic content in oil indicates a greater degree of paper aging/degradation. The higher the moisture content in paper, the faster it degrades. The faster it degrades, the more water is generated. As this process repeats, the aging rate of the paper insulation greatly increases.

Elevated temperatures due to higher ambients and higher loads also act as a catalyst to accelerate the rate of paper degradation caused by water and oxygen. At higher temperatures, water comes out of paper insulation and can form visible bubbles, often in high dielectric stress areas. These bubbles have less dielectric strength than the oil, leading to higher stress on the remaining oil gap which can cause a higher probability of failure.

Dryer transformers have longer insulation life (all else being equal) which means longer asset life. And dryer transformers have less risk of dielectric failure during periods of high temperatures which means lower SAIFI and SAIDI. Waukesha® Service has the equipment and experience to test for high moisture content and dry out the transformer if necessary.

ADDITIONAL SERVICES

In addition to oil processing and dryouts, SPX Transformer Solutions possesses the equipment, experience and capabilities to complete other repairs and/or upgrades you may elect to perform on your transformers while drained of oil. These services include regasketing, bushing replacements, LTC repairs/upgrades and internal inspections. Our highly trained technicians located nationwide offer years of industry experience and an outstanding field service record for professional handling of your service needs.

OIL PROCESSING

SPX Transformer Solutions' oil processing rigs prepare oil for installation, pull vacuum on a transformer and complete the vacuum oil-filling process using customer specifications, the transformer supplier's specifications or SPX Transformer Solutions' specifications.

Our processing fleet is staged and deployed from regional service centers located in California, Wisconsin, Texas, Louisiana and North Carolina, offering a variety of benefits to customers:

- Totally self-contained rigs
- High volume capacity processing and degasification
- Ability to degasify oil to less than 1% total dissolved gas
- In addition to vacuum level, flow rate and temperature monitoring, SPX Transformer Solutions' equipment includes on-line processing instrumentation that measures content of oil, dewpoint of vacuum exhaust and total gas content
- Heater capacity capable of elevating oil temperature to 70 degrees C in a single pass at rated flow rate
- Inlet and outlet oil filtered
- High vacuum capability

Complementary to the vacuum processing rigs, SPX Transformer Solutions' oil tank trucks are available for on-site oil storage or hauling.



CALL 800-758-4384

VISIT www.waukeshaservice.com

SPX TRANSFORMER SOLUTIONS

2701 US Hwy 117 South | Goldsboro, North Carolina 27530

Emergency Service Available 24/7/365: 888-365-24x7