







**COMPREHENSIVE TRANSFORMER SERVICES** 

Maintenance • Field Repairs • Assembly

### THE LEADER IN TRANSFORMER SERVICES

Power Substation Services is the nation's leader in the installation and servicing of substation transformers. Our expert crews travel across the country to provide oil and electrical testing services, as well as transformer maintenance and repair.

With our proprietary PCBX process, we are the only company in the United States with the EPA permitted mobile technology to destroy PCBs while performing the hot oil reclamation process onsite at customer locations.

When it comes to transformers, PSS does it better and more cost-effectively than anyone else. From installation and maintenance—to vacuum-filling and electrical testing—to oil testing and hot oil reclamation on energized transformers—we simplify your operation, saving you time, money and headaches.

# **TRANSFORM YOUR WORLD**



Our sister company, Environmental Protection Services is a leading provider of disposal and recycling services to the electrical industry. EPS concentrates on the removal and disposal of transformers and other electrical equipment. EPS can also handle the disposal of all levels of PCBs. In additional, EPS also handles the recycling and disposal of various types of dielectric fluids. We offer a broad range of highly-specialized services that are focused of significantly reducing their ongoing liability, risks and costs in a safe and environmentally friendly manner.



# **OIL RECLAMATION • PCBX**<sup>SM</sup>



# **VACUUM FILLING • RETROFILL**



FIELD REPAIRS • OIL SAMPLING

## **OUR SERVICES**

### **OIL RECLAMATION & PROCESSING**

#### **Extend the Life of Your Transformers**

The PSS hot oil reclamation rigs have purified millions of gallons of oil and prolonged the life of thousands of transformers. Because we perform this service energized, outages are often unnecessary.

Over time, byproducts formed inside the transformer decompose the cellulose insulation. The PSS process extends the transformer life by removing harmful contaminants that degrade the transformer's insulation system.

### **ASSEMBLY & VACUUM FILLING**

### **Expert Nationwide Service**

Our teams travel across the country safely installing, assembling, vacuum-filling and commissioning substation, power and GSU transformers with ratings and voltage as large as 1300 MVA and 765 kV respectively.

PSS installs the transformer and assembles the components. We then pull vacuum on the transformer, which allows us to maximize our ability to remove moisture and air voids in the windings. Our processing rigs circulate, heat, dehydrate and degas the oil before it enters the transformer, while continuously analyzing and monitoring the oil during the filling process.

### **FIELD REPAIRS**

#### We Work Weekends & Holidays to Minimize Your Downtime

Whether it's warranty repair for transformer manufacturers, or retrofitting or replacing components on older transformers, PSS' expert crews perform internal inspection and repairs on transformers of all sizes. We will also retrofit your aging transformers with new ones designed to fit within your existing configuration. Our experienced teams perform maintenance services that include:

- Regasketing
- Load Tap Changer
- Internal and External Inspections

- Welding Repairs
- Electrical Testing
- Bushing and Radiator Replacement

#### OIL SAMPLING & TESTING

#### Preventative Maintenance Dramatically Decreases Operating Costs

Transformers degrade over time, and failure to collect oil samples and conduct testing allows problems to go undetected, causing increased operating costs and downtime. Proper oil maintenance is vital and significantly increases transformer life. PSS' comprehensive, 19-point oil testing process is the best in the industry. These vital tests can uncover several potential problems within a transformer, including evidence of soluble contaminants, dielectric contaminants, and acid materials.

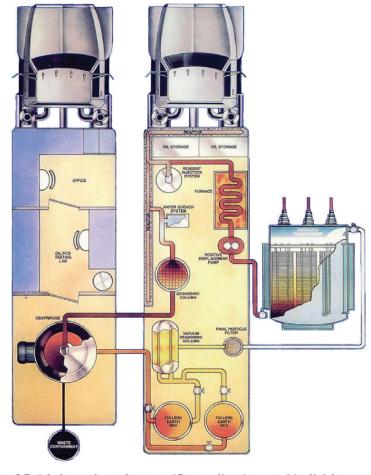
#### PCB DECONTAMINATION & DECHLORINATION

## The Only Mobile PCB Oil Treatment Process Permitted by the EPA

PSS travels to customer locations throughout the United States and uses the PCBXSM process to decontaminate the PCBs from the transformer mineral oil while the transformer is energized. This proprietary process circulates the PCB oil from the transformer, through the processing rig and back to the transformer until the oil is less than 2 ppm PCB. PCBX costs less than retrofilling the transformer and with no outages required to perform the service. PCBX is the only mobile EPA-permitted process for chemically treating PCB oil. Transformers with starting PCB contamination levels of 50-499 ppm can be processed to levels that will allow them to be reclassified to non-PCB status.



Improve Transformer Reliability & Safety. Reduce Environmental Hazards.



PSS retrofills power transformers with a variety of fluids based on the specific application and individual needs of the customer. We evaluate your oil for flash point, quality and other potential issues, and recommend various fluid options to correct any problems.

For small, mineral oil filled transformers it is often less costly to retrofill the oil rather than undergo a hot oil reclamation process. For larger substation transformers, replacing the mineral oil with a biodegradable fluid, such as Envirotemp FR-3™, saves money over building a firewall.

Replacing PCB-based fluids in existing transformers can help to improve the life and reliability of the transformer, reduce environmental hazards and increase fire safety.

#### POWER TRANSFORMER ELECTRICAL TESTING

#### We Use State-of-the-Art Equipment and Advanced Specialty Software

PSS uses state-of-the-art equipment to electrically test transformers. Our testing equipment utilizes special advanced software, which allows us to accurately store and transfer the data to our customers and generate detailed reports.

Oil Reclamation

**Vacuum Filling** 

**Field Repairs** 

**Oil Sampling** 

Retrofill

**Electrical Testing** 

**PCBX** 

**Sulfur Removal** 



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