



# Transformers Repair & Reconditioning

utility | industrial | commercial

Individual solutions | from a global perspective.



A SUBSIDIARY OF VIRGINIA TRANSFORMER CORP

[www.vtcucorp.com](http://www.vtcucorp.com)



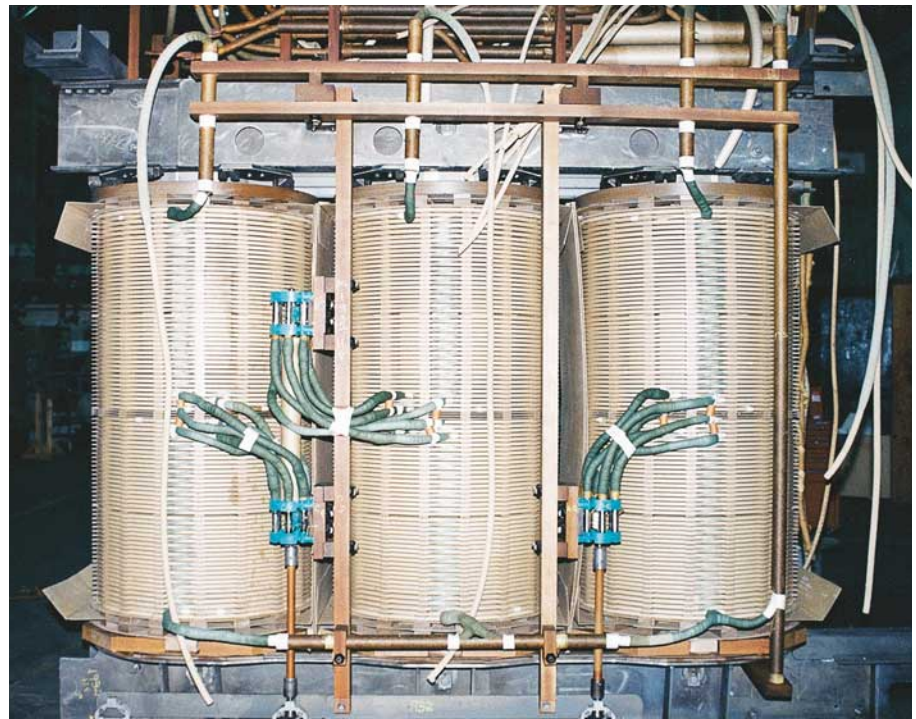
What you need. Where you need it. When you need it.

### LEADING THE WAY WITH EXPERTISE AND SERVICE:

When you need a transformer, we know how important it is to you that a company will back up their product with an experienced staff and immediate service.

VTCU in Pocatello, Idaho; now a member of the Virginia Transformer Corporation family of businesses, has built a solid reputation in transformer redesign and providing reliable remanufactured transformers to utilities and industrial customers throughout North America. Our strong emphasis on quality control, testing, service, quick shipment and one of the best warranties in the business, ALL at highly competitive pricing has earned us a reputation that we are proud to offer to you.

Our engineers, test and lab technicians are continually upgrading our design procedures, test equipment and manufacturing processes to maintain these state-of-the-art capabilities. The transformer and services you receive from VTCU will be the very best our industry has to offer.



## WARRANTY

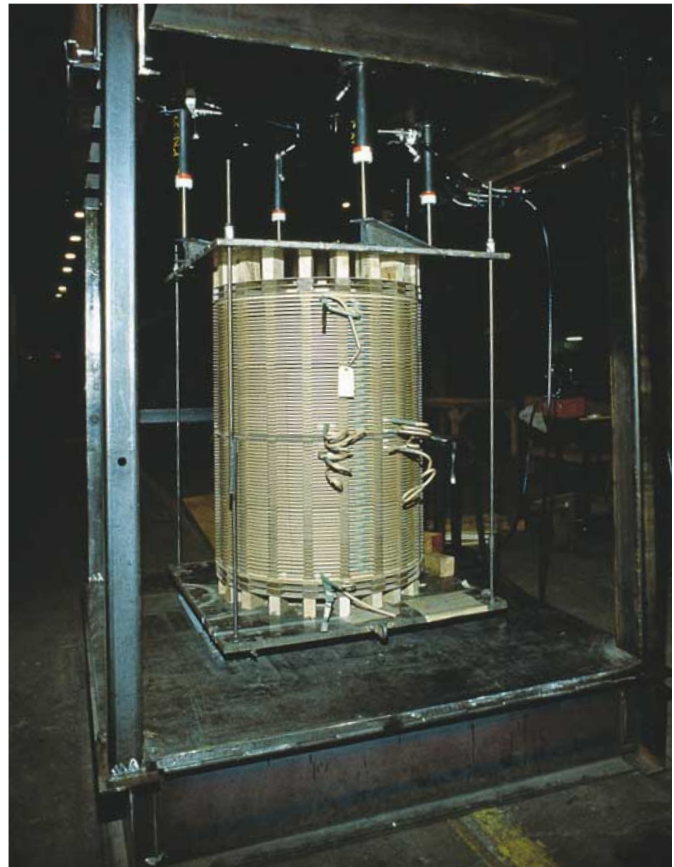
When purchasing capital equipment one always hopes that the warranty is something which you'll never have to use. When buying reconditioned equipment it is a more significant concern. VTCU offers a STANDARD 24/36 month warranty, to give you the peace of mind that you need.



## ENGINEERING:

The VTCU design staff has over 100 man-years of experience in the transformer industry. The design and engineering staff is on-site at the Pocatello, Idaho facility to insure quality from start to final test of each order.

- Transformers received for repair are redesigned, as opposed to simply copying the previous design, thereby taking advantage of state-of-the-art design techniques and saving money for our customers
- All design and testing is done in accordance with ANSI standards
- Transformer design utilizes software which simulates the design of the transformers and provides short circuit analysis
- Additional engineering expertise is always available through the VTC family of businesses



## QUALITY CONTROL

At VTCU, Quality is more than a buzzword, it is a priority. Our philosophy for Quality starts at the top of our organization and reaches each and every level of activity throughout the process.

- Each transformer repair is divided into more than 260 individual tasks
- Each craftsman signs off upon completion of their function and the sign-off sheets become a permanent record for the job
- A set of quality control standards are issued for each unit and used to insure each inspection process is carefully followed
- The design engineers routinely monitor production activities and are responsible for conducting and documenting a quality audit of the finished windings. A four page audit of the core and coil assembly is also documented
- At final test, the fully equipped test room allows for all standard ANSI tests to be performed



## HOW WE REDESIGN AND REBUILD TRANSFORMERS:

Repairing transformers is an exacting science. At VTCU our technicians have the expertise to bring advanced design technologies to your damaged or obsolete transformers:

- The transformer is disassembled and examined to determine original design characteristics, weakness, and the specific cause of failure
- CAD programs are utilized to optimize design and analyze short circuit strength to meet the specifications. Materials are ordered based on the most advantageous design
- Replacement coils are wound with new conductor and new insulation materials by our technicians
- Any modifications or upgrades to the tank, clamping structure and the LTC controls are completed in parallel
- After the transformer is assembled, the tank exterior is sanded, primed and repainted. The transformer is then rigorously tested in accordance with the latest ANSI standards
- Only after all tests have been passed will VTCU allow the transformer to be shipped
- VTCU can also arrange all logistical support for delivery and erection

## ADVANTAGES OF A RECONDITIONED TRANSFORMER FROM VTCU:

- Cost can be 30-40% less than the price of a new transformer
- Custom designed to match individual requirements
- Cycle times are significantly shorter than purchasing new, sometimes as little as a few days to get back up and running
- Our standard warranty is superior to the industry standard for new equipment
- VTCU can offer complete turnkey services to provide the most convenient solution for the customer



Our quality is in the details.



## OUR SERVICES SET US APART

At VTCU, we will work with you to identify your transformer needs and customize the solution. Once we know your exact requirements, our engineers will quickly recommend the right solution based on your specific needs

We offer these services:

**REDESIGN SERVICES:** To meet performance requirements we are able to incorporate short circuit strength improvements, kVA upgrades, voltage changes, reduced losses, LTC modernization, sound level reduction and tank modification.

**EMERGENCY REPLACEMENTS:** When you are looking for a specific transformer, call VTCU. We have a computerized inventory system of available transformers on a nationwide basis. We can respond quickly to your problem.

**EMERGENCY REPAIRS:** When a replacement transformer is not available, absolutely no one can turn around your repair faster than VTCU.

**TURNKEY SERVICES:** These services include on-site disassembly, transportation to our facility, indoor untanking, inspection, repairing and testing, return delivery to your location, re-assembly, vacuum filling and field testing.

**RECONDITIONING:** Our technicians replace gaskets, broken bushings and accessories, purify or replace the oil, sand, prime and repaint the unit. When complete, the unit is fully tested.

**FULL TESTING:** We provide certified test reports based on standards established by American Nations Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers (IEEE).

VTCU is a member of the VTC Family of Businesses



### Capabilities:

Up to 300 MVA/900 BIL  
120,000 Square Foot Facility  
Dedicated Winding Room  
Vapor Phase Oven  
Rail Siding

### Transformer Types:

Load Tap Changing  
Generator Step-Up  
Auto Transformers and Regulators  
Mobile Substation  
Furnace and Rectifier

### Testing:

Impulse  
RIV  
Temperature Rise  
ANSI Routine

# THE FAMILY OF BUSINESSES



Corporate Headquarters, Roanoke, VA



Pocatello, ID



Chihuahua, Mexico



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