



VTC Helps Solve the Problem for Bonneville Power Administration

Summary: A routine replacement of bushings on two transformers at a substation near Idaho Falls revealed seven bushings close to failing. However, the dated units were built to European standards that are no longer used and replacements could not be found.

Roanoke, VA – Jan. 13, 2012

This critical substation supplies power to most of the east side of BPA's Idaho Falls District which includes West Yellowstone, Mont., Jackson Hole and Afton, WY. Frigid winter temperatures drive up electricity use and put pressure on the transformers to meet peak loads. After testing on two transformers revealed seven bushings were close to failing, the decision was made to replace the bushings. However, the transformers were built in 1952 to standards that are no longer used. The bushings had been replaced almost 30 years ago, but could no longer find replacement parts.

Bushings made to current American National Standards Institute specifications would not fit the transformers with proper clearances. BPA then contracted a manufacturer to build new bushings for the transformers. The new bushings barely fit the transformers: however the connections still did not provide enough clearance. It was then that Virginia Transformer Corp. helped BPA determine that the lack of clearance could be addressed by filling the transformers with more oil, providing additional insulation and cooling. However, a nitrogen blanket that prevents deterioration of oil inside the transformers left no room.

The solution was the addition of new conservator tanks to the transformer banks to give the oil enough breathing room to expand and contract. VTC was then contracted to install the tanks so oil levels could be raised to provide the required insulation. This fix should extend the life of the transformer banks beyond the industry average of about 50 years to an estimated additional 20 more years.

Founded in 1971, Virginia Transformer has grown to become one of the largest power transformer manufacturers headquartered in the U.S. VT custom designs transformers for every market and application – from Utilities, Commercial&Industrial, Renewable Energy, Marine/Offshore projects, and many others. The company has three North American manufacturing plants which serve an extensive international customer base.

Virginia Transformer Corporation
(Corporate Headquarters Office)
220 Glade View Drive
Roanoke, VA 24012
(540) 345-9892
Sales@vatransformer.com
<http://www.vatransformer.com>