PCORE Bushing Repair / Return Procedure

The following procedure is in reference to the shipment of manufacturer's bushings to the PCORE Electric bushing factory for evaluation and possible repair:

Step 1: Customer requests bushing(s) be shipped to PCORE for evaluation and repair.

Step 2: PCORE provides a budgetary quotation based on the approximate repairs required as communicated by the customer.

Step 3: Customer provides PCORE with certificate of analysis from a certified laboratory showing the PCB content of the oil contained within the bushing(s) to be shipped to PCORE for repair and organized by manufacturer, catalog number and serial number. This information should be faxed or e-mailed to the PCORE Customer Service Dept. Page (3) explains this process and the PCORE requirements **(PCB content MUST be less than 10ppm)**.

Step 4: A Return Material Authorization Number **(RMA No.)** is assigned by PCORE to the bushing(s) being shipped to PCORE for repair. This RMA number needs to be marked on each bushing crate prior to shipping.

Step 5: Customer arranges to ship bushing(s) to PCORE. The customer is responsible for the freight charges of the bushing(s) unless otherwise negotiated.

Step 6: Once the bushing(s) are received at PCORE, we:

- Evaluate to determine extent and feasibility of repair
- Advise the customer of the evaluation results
- Obtain customer approval to proceed with the bushing repair
- If bushing is determined not to be repairable or the customer disapproves proposed repair, a **$1,000 min. evaluation charge** will be assessed for the initial bushing evaluation.

Step 7: Bushing repairs begin referencing PCORE's Standard Evaluation and Repair Procedure (contact factory for details).

Step 8: Final quotation with actual repair charges is submitted to customer based on the bushing evaluation and repairs required. A purchase order is requested from the customer to be kept on file at PCORE.

Step 9: Repairs are completed and the bushing(s) is prepared for return shipment to the customer. PCORE processes the purchase order and arranges for return shipment of the bushing(s). The customer is responsible for the return freight charges of the bushing(s) unless otherwise negotiated.

Additional Notes:

PCORE's Repair Capabilities Include:

- Bushing regasket
- Core replacement (referred to as recore and regasket)
- Minor component repair such as fixing chipped porcelain, voltage tap repair/replacement, sight glass repair, etc.

PCORE Can Repair the Following Manufacturer's Bushings:

- ABB
- General Electric
- Lapp Insulator
- Locke
- McGraw-Edison
- Ohio Brass
- Westinghouse

PCORE's Typical Repairs include the Following kV Classes:

- 25kV - 69kV (3,000A or greater)
- 115kV - 500kV (all current ratings)

PCORE's Repair Exceptions:

- Compound filled bushings (typically Westinghouse or IEC designs)
- Bushings with varnished paper cores (typically Westinghouse or IEC designs)
- IEC (European) bushing designs
- Bushings with oil having a PCB content greater than 10ppm.

To: All Customers

Subject: - Lapp Bushings Manufactured Before 1980
- All Other Manufacturers' Bushings

Instructions for the Return of Bushings to PCORE Electric Bushing Factory

All customers wishing to return an oil-filled bushing or bushings which previously contained oil to PCORE Electric Company must provide the following information prior to obtaining a PCORE Return Authorization Number.

1. A Certificate of Analysis from a certified laboratory showing Polychlorinated Biphenyl (PCB) concentration of the bushing must be provided to PCORE.
2. A signed cover letter specifying the bushing identification number that the sample was obtained from which correlates to the sample analysis must be provided by the customer and accompany the laboratory analysis.
3. For bushings which have had the oil removed, swab test from a surface area of the bushing that was in contact with the oil is required.
4. **For bushings being shipped from within the Continental U.S., PCORE Electric Company will not authorize return or accept bushings for repair with a PCB concentration greater than 10 PPM**.
5. For bushings being shipped from outside the Continental U.S., PCORE Electric Company will not authorize return or accept bushings for repair with a PCB concentration above detectable limits.
6. When all of the above requirements are met, PCORE Electric Company may issue a Return Authorization number. Under no circumstances shall a customer return bushings to PCORE Electric Company prior to obtaining a PCORE Return Authorization Number.

Note: All sampling and testing procedures must conform to Environmental Protection Agency (EPA) 40 CFR 761.