



## IMCORP Root Cause Analysis (RCA) Program

With over 230,000 cable assessments from 5kV to 500kV, IMCORP's Factory Grade Technology has uncovered 10s of thousands of substandard cables and accessories. RCA's have become a valuable service for our clients to understand the cause of the defect site, to either address gaps in craft-work, during installation, or to address defects found in the component with the manufacturer. The results of IMCORP RCA's are used to mitigate future defects which lead to premature cable system failures. IMCORP offers component dissection and RCA services for failed cable system components at our laboratory located at our headquarters in Manchester, CT. We have performed over 4,000 combined field and laboratory dissection. This could include entire cable system, specific cable sections, splice components or termination components. Service includes any cable/component prep, dissection of specific issue, full photographic record, and comprehensive analysis. IMCORP welcomes customers and manufacturers to attend and witness RCA dissections and analysis in or CT laboratory, or we can provide live video feed for remote observation. Dissection and analysis results will be provided via an RCA Report.

In an effort to better serve our clients, we have established a robust collection procedure designed to assure that every effort is made to preserve evidence which may indicate the root cause and subsequently help to establish practices to mitigate the risk of future cable system failures:

- We ensure proper identification of sample
- Field location matching tags when applicable
- Photographic record:
  - Before and after extraction
  - Packing and unpacking of sample
  - Full delayering and dissection
- Full chain of custody

### IMCORP Lab:

- Fully equipped for dissections with a high voltage lab
- Wafering and microscopy
- Regimented dissection process including:
  - Chemical analysis
  - Electronic microscopes
  - Micro CT scanning

### RCA Reports

IMCORP will provide a full report on the entire RCA process, photo documented unpacking, inspection, each dissection step, detailed photos of contributing factors to the defect area, as well as photos of non-contributing workmanship issues. Sections included in the final report:

- General information and summary
- Sample details
- Sample as shipped
- Sample as received
- Analysis result(s)
- Notes on sample receipt
- Sample background
- Relevant RCA steps
- Conclusions
- Root cause images