

About Us

Since 1911, PowerLabs has continually provided customers quality calibrations and testing. First established under the Philadelphia Electric Company's testing section, we have since grown and expanded our laboratory capabilities not only in metrology but in testing and analysis over the last half century.

Today, PowerLabs is the primary calibration and testing laboratory for Constellation. We have labs strategically located from the upper-Midwest to the Northeast to better support the urgent demands of quality driven industries.

Quality and Accreditations

Being an Approved Nuclear Supplier, we adhere to strict code requirements including 10 CFR 50, Appendix B, NQA-1 and ANSI N45.2. These guidelines are the basis for which we have built our Quality Program.



Service Offerings

Due to the breadth of our experience in the nuclear industry, we have amassed an extensive inventory of lab equipment to perform a full spectrum of calibration, testing, and analysis services.

PowerLabs is always expanding our technical capabilities. View our service offerings to see what areas we can best support your needs. We also offer specialized testing upon request. For a quote, please contact powerlabs@constellation.com.

Contact Us

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Technical Services

Testing and Analysis



Constellation.

PowerLabs



Our Services:

Appendix B Testing

Our Quality Program satisfies the requirements of 10 CFR 50; Appendix B, ISO 17025, NQA-1 and ANSI N45.2 – and is audited routinely by NUPIC and NIAC for continued compliance.

Chemical Analysis

Our chemical analysis and testing services include trace analysis, metals testing, contamination detection and identification of unknown substances for a wide range of purposes, such as material identification and characterization to quality control monitoring.

Commercial Grade Dedication Testing

We perform tests and analysis on parts, components, or equipment to verify the critical characteristics for parts being dedicated for commercial grade use or in a safety-related applications.

Tests are based on acceptance performance criteria to ensure the component will function for its intended use. We test over 12,000 safety related parts annually providing our customers unmatched reliability.

Our comprehensive Appendix B program includes concise documentation of our test results and provides you with the most reliable cost-saving alternative to OEM replacements.

Diesel Fuel, Grease & Lubricant Testing

We test and certify “Safety-Related” diesel fuel grease, lubricant, and oils for use in nuclear power facilities.

Failure Analysis

Understanding the characteristics that caused an unplanned failure is critical when determining corrective actions to prevent future occurrence and potential catastrophic damages.

PowerLabs has been performing failure analysis well over 50+ years and brings a depth of operational experience. Our qualified engineers and technicians perform a series of examinations and testing methods to find the cause of the failure, leading to accurate, detailed reporting.

Our wide range of lab equipment – combined with access to thousands of failure records – enables our team to quickly identify the true root cause of failure.

Parts Quality Initiative (PQI) — Critical Parts Testing

In 2006, when Constellation experienced frequent events caused by parts quality issues, Constellation created the Parts Quality Initiative (PQI) program.

The PQI program is a continuous improvement process that tests parts critical for safe, reliable plant performance, allowing defective parts to be identified before installation in the plant.



These parts can be returned promptly to manufacturer for replacement, leading to significant improvements in plant reliability and cost savings.

As an independent third-party testing company, we have results for thousands of tested critical parts captured in our OneLab PQI database, which provides predictive analytics insights and part failure-rate trends.

PowerLabs has tested over 100,000 critical parts, thereby preventing the installation of nearly 6,000 poor quality parts in critical Nuclear plant applications.

PQI is a proven program designed to save you time and money by:

- Preventing defective parts from entering inventory through rigorous PQI testing
- Reducing risk from installing defective parts that can potentially trigger a significant event— and result in costly delays and down power events
- Identifying high probability failure rates in parts through PQI trending data

PowerLabs' PQI program complies with the parts quality recommendation required in INPO IER L2 21-4 and has been proven to improve plant performance dramatically.