



BETA Laboratory offers comprehensive failure analysis, repair and refurbishment services for all industries through our Mayfield facility. We are especially strong in obsolete equipment repair. Our experienced staff is recognized for their technical excellence, dedication to high quality service and commitment to customer satisfaction. All repair solutions as well as refurbishment and failure analyses are provided under an **ISO 9001** quality system and a 10CFR50 Appendix B program is available.

We are integrated within a larger analytical laboratory which allows us to offer component level failure analysis via Scanning Electron Microscope (SEM) and many other advanced analytical techniques. Our extensive in-house **ISO 17025** accredited calibration lab further adds to the value we offer our customers.

## Repair and Refurbishment

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- Comprehensive array of repair capabilities for all industries
- Nuclear Safety-Related and non-safety capability including commercial grade dedication testing
- Specialize in troubleshooting and repair of obsolete electronic equipment
- Preventive component replacement (prior to failure)
- Spare circuit board and electronic module condition assessment for critical inventory
- Failed component identification
- Component functional testing
- Specialized test fixtures for functional testing, burn-in and duty cycling

## Failure Analysis

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- Extensive multi-discipline analytical techniques including electronic/electrical, mechanical, environmental, microscopic and chemical
- Component and sub-component level failure analysis via microscopic or advanced analytical techniques
- Component by component circuit mapping via automated test instrumentation (also used for post repair validation and spare parts validation)
- Root Cause investigation support including detailed documentation for Nuclear utility customers
- Preventive action and repair recommendations
- Complete mock-up testing with temperature and humidity to recreate failure conditions



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BETA Laboratory and Technical Services

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