

DEPARTMENT OF ENERGY CAPABILITY STATEMENT

Nutherm's mission is to be the best value supplier of electrical safety systems, assemblies, and components to the Department of Energy.

EQUIPMENT QUALIFICATION

- IEEE 323 and IEEE 344
- Tri-axial seismic testing
- Harsh environment (radiation, steam, temperature)
- Electrical performance
- Accelerated thermal aging
- Cycle aging
- Material testing (FTIR, metal content verification)
- **EMC** testing

QUALITY ASSURANCE

- NQA-1 1994 (1995a), 2008 (2009a)
- 10 CFR 50 Appendix B
- Safety Class, Safety Significant, Important to Safety, Safety Related, Augmented Quality, High Confidence
- DOE O 414.1D, 10 CFR 830 Subpart A
- 10 CFR Part 21 notifications
- NUPIC and NIAC audited
- NIAC audit shared by DOE sites

TEST CAPABILITY

- Seismic: 4400lbs (dead weight)
- System thermal aging: up to 1200ft³ at 300°F
- Component thermal aging: up to $30ft^3$ at $500^{\circ}F$
- Steam chamber: 450°F at 150PSI
- Electrical: current, voltage, resistive and inductive loads, dielectric
- Circuit breaker testing: up to 20,000A
- Electrical loading: 1600A resistive
- Calibrated test equipment: >200 pieces
- Full list of test capabilities available
- Custom testing scenarios available

DOE PAST PERFORMANCE

- Los Alamos National Laboratory
- Savannah River, Hanford, Nevada National Security Sites
- Oak Ridge National Laboratory
- Argonne National Laboratory
- Fermi National Accelerator Laboratory
- National Enrichment Facility

DIFFERENTIATORS

- Centrally located in the US
- Small, agile, quick to respond
- Specializing in expedited and difficult
- Over 40 years in business as 3rd party qualification and commercial grade dedication business
- UL 508A panel shop

COMMERCIAL GRADE DEDICATION

- ASME NQA-1 Part II, Subpart 2.14
- EPRI NP-5652, TR-102260, TR-1021493 & EPRI 3002002982, Rev. 1 to NP-5652 & TR-102260
- >8,000 previously dedicated parts in Nutherm's test specimen library
- Suspect/counterfeit item prevention meeting DOE O 414.1D incorporated into dedications

Class 1E Systems & Components Since 1979







INNOVATIVE SOLUTIONS

- Obsolescence, re-engineering or replacement of components and complete systems
- Built-to-spec control panels
- Motor Control Centers OEM
- Refurbishment, hybrid
- Walk-in equipment enclosures
- Generator and UPS systems
- PLC testing services

Qualifications

Dedication

Thermal Aging

Mechanical Cycling

Electrical Cycling

Radiation Aging

EMI/RFI Testing

Seismic Testing

Vibration Aging

Material Analysis

Similarity Analysis

Dedication Services

Electrical Design Tests

Metallurgical Tests

Air Circuit Breakers

Fuses/Fuse Blocks

Protective Relays

Power Monitors

Test Switches

Mechanical Design Tests

Performance

Protective Devices

Equivalency Evaluations

Material Property Testing

Modifications to pass seismic testing

SERVICES

HELB/MSLB & LOCA Testing

Critical Characteristic Verification

Calibration of Dedicated Instruments

COMPONENTS

Molded Case Circuit Breakers

Potential/Current Transformers

Overload Relays/Heater Coils

Fused Disconnect Switches

Vacuum Circuit Breakers

COMPANY HISTORY

- Serving the nuclear industry since 1979
- Privately held
- Family owned
- Debt free, financially secure
- Employees from nuclear Navy, DOE, and commercial nuclear utilities
- Fully insured

COMPANY DATA

NAICS

315990, 332311, 332911, 332912, 332999, 333413, 333414, 333415, 334416, 334417, 334419, 334513, 334515, 334519, 335311, 335313, 335314, 335931, 335999, 423330, 423390, 423410, 423420, 423510, 423610, 423620, 423690, 423710, 423720, 423730, 423740, 423830, 423840, 423850, 423990, 459999, 541330, 541380, 541420, 541990, 811310

DUNS 09-863-7861; **UEI** GZ26UJJBJTD6 **Cage** 7S874

Socio-Economic

Small business & Hubzone certified for all NAICS codes

Control Devices

Pushbutton/Selector Switches

CORE PRODUCTS AND SERVICES

- Indicator Lights
- Auxiliary Relays
- Timing Relays/Timers
- Contactors/Motor Starters
- Control Power Transformers
- Terminals & Terminal Blocks

Process Instrumentation

- Pressure and DP Switches
- Temperature Switches
- Level & Flow Switches and Meters
- Level & Temperature Transmitters
- Temperature Controllers & Sensors
- Actuators
- Pressure & Level Gauges
- Tachometers

Electronic Conditioners & Alarms

- Annunciators
- Signal Converters & Transducers
- Signal Isolators
- Alarm Units
- I/P & P/I Converters
- Pneumatic/Electronic Positioners
- Smoke Detectors

Indicators Analog & Digital

- Voltmeters & Ammeters
- Wattmeters & Varmeters
- Frequency Meters

Motors

AC, DC & Damper Motors

MAJOR EQUIPMENT

Distribution

- AC & DC Motor Control Centers
- Variable Frequency Drives
- Medium Voltage Switchgear
- Low Voltage Switchgear
- AC & DC Panel Boards
- Medium & Low Voltage Transformers

- Disconnect Switches
- Walk-in Enclosures
- Reduced Voltage Starters
- Multi-Speed Starters

Emergency Power

- Constant Voltage Transformers
- Power Transfer Contactors
- Diesel Generator Sets
- UPS Systems
- Load Banks
- AC & DC Power Transfer Switches
- AC & DC Control Transfer Switches
- Battery Chargers
- Inverters

Control/Specialty

- Diesel Driven Fire Pumps
- Electric Driven Fire Pumps
- Fire Pump Controllers
- PLCs
- Termination Cabinets
- Control Panels
- Instrumentation Panels
- Enclosures
- Heaters & HVAC Control Systems
- UL 508A Panels
- Computer Racks and Consoles
- Instrument Racks
- Annunciator Panels
- Relay Panels
- Relay Farier
 Panel Fans

Miscellaneous

- Design & Fabrication of Retrofit Kits
- Failure Analysis
- Replacement Research (Obsolescence)
- Re-Engineering
- MCC Buckets & Components
- Analog Controllers
- Power Supplies
- Procurement Support
- Selector Switches
- Transformers

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