



POWER & CONTROL COMPONENTS

OVERVIEW

Nutherm has provided third party qualification and dedication services since 1979, and we continue to be a leading participant in this area. We have performed qualification testing on more than 9,400 electrical parts, instruments and assemblies.

TYPES OF COMPONENTS

Nutherm has qualified, dedicated and supplied the following types of parts to the nuclear power plant industry:

PROTECTIVE DEVICES	CONTROL DEVICES
Circuit Breakers	Relays
Fuses	Push Buttons
Protective Relays	Lights
PROCESS INSTRUMENTATION	INDICATORS
Level Switches	Voltmeters
Flow Switches	Ammeters
Temperature Switches	Wattmeters
Gauges	Varmeters
ELECTRONIC CONDITIONERS AND ALARMS	
Annunciators	
Signal Converters	
Alarms	

QUALIFICATION

Nuclear projects involving environmental and/or seismic qualification are accomplished in accordance with IEEE 344, IEEE 323 and applicable equipment specific qualification standards. We are experienced in dedicating parts in accordance with the EPRI NP-5652 guidelines through strong procedural and engineering control. We use various combinations of test, analysis, audit, and inspection to meet the requirements of each project.

EVALUATION

Prior to qualification testing, parts are evaluated for seismic and environmental suitability. If necessary, modifications are made to enhance the likelihood for successful testing. If modified, a Nutherm modification number is assigned so the same change is made to any subsequent part whose qualification is based on the test program.

Other items require us to manufacture special adapters or mounting brackets to fit existing equipment or to meet seismic levels. We select the best replacement parts available, modify if necessary, and perform the testing and analyses necessary to qualify and dedicate the parts for use as a basic component. With this approach, we can supply a replacement process controller, refurbish and upgrade motor control centers/buckets or make control panel inserts to replace an area of obsolete parts.

Class 1E Systems & Components Since 1979



EMC AND EMI TESTING

Nutherm performs electromagnetic compatibility (EMC) testing and electromagnetic interference (EMI) testing in accordance with EPRI guidelines, MIL standards, and IEC standards. Testing evaluates compatibility with the equipment (itself and other) and evaluates the equipment performance in the electromagnetic environment in which it operates. Tests are used in equipment qualification as required.

OBSOLESCENCE ISSUES

Nutherm solves obsolescence issues for our nuclear industry customers. Our experienced staff of electrical and mechanical engineers review each problem and develop a solution to meet the application requirements. Whether we qualify commercial items or develop our own design, the issue will be resolved.

Nutherm helps numerous customers resolve replacement part problems and meet their outage deadlines with expedited services. Utilities can count on Nutherm to meet their qualified parts needs, whether routine or unusual.

Visit our web site at www.nutherm.com for a complete listing of our qualified equipment and parts.

