Products and Services
Electronic Systems Technology

Electronic Equipment Restoration™ (EER)

Restoration of obsolete electronic equipment to original specifications and like-new condition; including reverse engineering, fabrication and manufacturing, and equipment assessment, repair, and testing

STAR®

Digital process control modules; replacement for Bailey 721, 820, GMAC, & Westinghouse 7300 hardware, as well as specific customized applications (Safety-Related – STAR and Non-Safety Related Systems – CONTROL STAR)

Reactivity Management Analysis System

Software, hardware, analysis, and on-site support services (for Zero Power Physics Testing)

Loose Parts Monitoring System

System hardware and equipment including diagnostic and analysis support

Specialty Electronic Equipment

Engineering, design, and manufacture of custom hardware, equipment, and/or systems applications

Nuclear Instrumentation Systems

BWR and PWR related equipment: Low Power Range Monitor (LPRM), Traverse Incore Probe Systems (TIPS), Wide Range Power Monitor (WRM), and Moveable Incore Detector (MID); including related process instrumentation (e.g., re-engineered replacements for the OEM (Bailey Controls) supplied (B&W) equipment – Power Range Test Module, Bi-Polar Power Supply, and High Voltage Control Module) and systems

Vibration Monitoring System

Replacement and repair & return of OEM (B&W) supplied hardware and equipment

Diamond Power Control Rod Drive Control System

Exclusive support (replacement, repair & return, or EER) of OEM (Diamond Power) supplied (B&W) equipment and system

Software Applications and Programming

- New product development, current program maintenance, and obsolescent program porting to contemporary platforms
- Safety (including SW V&V), non-safety, control, monitoring, data acquisition, and analysis applications for the commercial nuclear power industry

A sampling of the capabilities in our Product Software Engineering group: Visual C++ (w/MFC & SDK), Visual Basic, C#, C, C++ (DOS), ANSI C, BASIC, CAMBASIC, LabView, MMI Development, PLC Programming, Embedded Programming, OPC, SQL, & DCOM.

Plant Data Acquisition Systems

Customized applications such as plant performance monitoring (in/outside containment systems)

Leakage Detection System – FLÜS

State-of-the-art humidity monitoring for detecting leaks in crucial plant systems such as the reactor coolant system

Boronometer System

Rod Drop Testing Software

Equipment Qualification Engineering Services

Equipment Dedication Engineering Services

Equipment Equivalency Evaluations

AREVA Inc.
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AREVA

Electronic Equipment Restoration™ (EER)

Overview

- AREVA's innovation and experience has led to our Electronic Equipment Restoration™ (EER) Products and Services for obsolete equipment. Our approach is to restore obsolete electronic equipment to original specifications and like-new condition
- Obsolete equipment does not mean it is "failed" or "broken" (a common misconception)
- Restoration is under an equivalency process to industry codes, standards, and guidelines
- Restoration involves repair, rework and/or reconditioning
- Initial engineering and technical evaluation to determine extent of condition and approach to restoration

Advantages

- Extend operational life of existing equipment until system upgrade or replacement
- Reduces "paperwork" because equipment usually still "fits" in existing space
- Usually an item is restored to same form, fit and function
- Typically seismic and environmental qualification not impacted
- No increased maintenance, training, operation, or documentation required
- Components and parts identified should support maintainability until system upgrade or replacement

Approach

- Restoring as opposed to "repairing" an electronic device to original specifications or like-new condition ensures the complete device is functioning and performing properly (i.e., repairing a device usually is done where a known part of the circuit has an identified problem or failure and although the repaired circuit may work properly, another portion may be borderline and may fail soon after returned)
- Restoration is defined as equipment inspection and assessment, device cleaning (such as connectors, sockets, and PCBs), and the replacement of components and parts that are deemed sensitive to age degradation (such as switches, capacitors, some fiber optic devices)
- Identify and replace components and/or parts that are unavailable via an equivalency evaluation process
- "Burn-in" bench type test performed under normal environmental conditions to ensure the restored device does not prematurely fail upon return (usually newly soldered and new components and parts are susceptible)

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