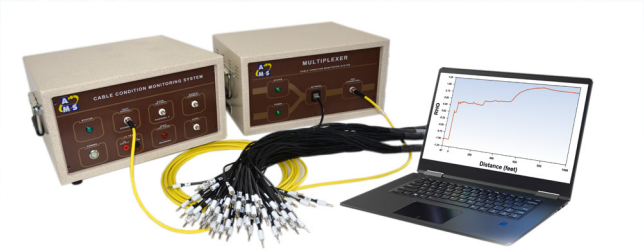
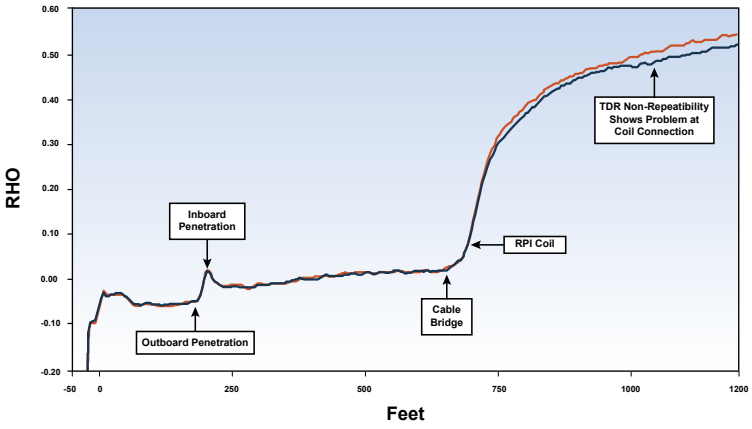
AMS CABLE TESTING

Condition Monitoring, System Health, Aging Management, & Troubleshooting

AMS has been providing equipment and services for troubleshooting and condition monitoring of electrical cable systems for more than twenty years. Extensive research and development activities have led to recent advancements in the cable testing techniques that have been incorporated into the release of a new CHAR System.



The CHAR Cable Condition Monitoring System measures the health and integrity of a cable by performing a series of non-destructive electrical tests that can be administered from the measurement end of the cable circuit. This allows testing of most cable circuits, and end devices while saving test personnel exposure to potentially harsh environments. The data collection is managed by user-friendly proprietary software that automatically trends recent measurements with historical baseline data, while flagging discrepancies and outliers.



Featured Benefits

Identify Common Cable Problems

- Degraded Connectors
- Moisture Intrusion into Cracked Cable Insulation
- Intermittent Connections
- Noise Coupling from Damaged or Degraded Shielding
- Open-Circuit Faults
- Short-Circuit Faults – Between Conductors, Conductor to Ground
- Turn-to-Turn Shorts in Motors and Coils
- Thermal Aging of Cable Insulation and Jacket Material
- Foreign Material or Moisture Contamination in Connectors

CHARacterization Test of Complete Cable System

- Instrumentation and Power Cables, Including Connections, Penetration, and Splices
- Rod Drive Mechanism Cables and Coils
- Rod Position Indication System Cables
- Nuclear Instrumentation Cables, Connectors, and Detectors
- Baselining Newly Installed Cables and Connectors
- Motor Coil and Valve Cables and Connectors
- RTD and Thermocouple Cables and Connections

Cable Aging Management

- Determine Age of Cables for Qualified Condition Assessment
- Single-Ended Electrical Tests of Cables and End Devices
- Indenter Modulus Test of Cable Insulation and Jacket Material
- Comprehensive Chemical and Mechanical Laboratory Tests with Accelerated Aging to Predict Cable Remaining Useful Life

Cable Circuit Troubleshooting and Fault Diagnostics

- Distance to Fault
- Fault Severity
- Effect of Fault on Cable Circuit Performance
- EMI/RFI Analysis
- Recommendations for Repair
- Automated Report Generation

AMS also employs proprietary techniques for locating intermittent faults and electrical noise coupling into shielded circuits, such as those in nuclear instrumentation systems.

AMS is also a leader in the field of cable aging management. All plant instrumentation and control (I&C) systems depend on reliable plant wiring, and cables are now being used beyond the manufacturer's qualified life rating. Although individual cables can be replaced, wholesale replacement is neither a prudent nor a practical aging management strategy. Therefore, a more cost effective strategy for I&C cable aging management is needed to meet the goal of plant sustainability. These increased regulatory requirements for plant life extension can be fulfilled by the AMS cable aging management program.

10CFR50 Appendix B Program

For more information please contact: Darrell W. Mitchell | Technical Services Manager
Ext: 108 Email: darrell@ams-corp.com

Ryan D. O'Hagan | Engineering Project Manager
Ext: 103 Email: ryan@ams-corp.com

AMS Technology Center
9119 Cross Park Drive
Knoxville, TN 37923, USA

TEL 865 691 1756
FAX 865 691 9344

EMAIL info@ams-corp.com
WEB www.ams-corp.com