

For over twenty years Altran Solutions has been in the equipment reliability business. Using the combined resources of its laboratory, plant-savvy engineers/managers, scientists, and advanced analytical techniques, Altran has addressed a wide range of issues that have had significant impact of resolution and mitigation of threats to reliable operation of commercial nuclear generation facilities.

With increasing challenges facing the nuclear power industry, including maintaining plant availability, managing of aging/obsolescence of systems and components, and the knowledge loss due to workforce reductions and retirements, Altran can provide focused reliability-related services.

Altran recognizes that nuclear plant owner-operators are at different stages of plant reliability program implementation, and for this reason, Altran has designed its services to accommodate entry points that match client needs illustrated below (typical scope of service).

Entry Point: Overall ER Program Analysis

- Review processes and procedures versus INPO AP-913
- Identify gaps in AP-913 "block" or "connector" functions
- Evaluate programs (PM, PdM, FAC, etc) and technologies
- Detail the gaps between the current state and future desired state
- Recommend program/ technology focus

Entry Point: Particular Equipment Issues

- Assess specific component failure
- Apply focused technology/issue consultants
- Utilize appropriate tools (CFD, FEM, Signal Processing, RDA, etc)
- Recommend and implement corrective action
- Examples include piping failures, SPV, turbine vibration, A600 analysis, etc.

Entry Point: Technology Issues

- Review site/fleet use of technology (vibration, eddy current, performance monitoring algorithms, PDM data collection, OPS rounds data collection, etc.)
- Recommend technologies, vendors and training

Entry Point: Plant Program Issues

- Review target site program (FAC, Integrated Perf Mont, PdM, PM, CAP, AOV/MOV, Comp Criticality, LCM/Comp AM, etc.)
- Assess functionality, reporting methods, training needs, vendor options, etc.
- Perform program "gap" analysis
- Recommend process, tracking and implementation methods
- Provide training or mentoring

Entry Point: System/Component Engineering/ Training/Mentoring

- Assess System and/or Component engineer roles and responsibilities
- Evaluate engineering tools and tracking methods
- Assess communication/reporting methods
- Assess plant culture dynamics
- Recommend and execute training and/or mentoring for the site/fleet

Altran Solutions' reliability-related services are provided by teams of engineers and scientists who collectively cover mechanical, electrical, controls, civil and structural engineering disciplines, plus the following specialty areas:

Biofouling	PM Templates
Coatings	Comp Asset Management (CAM)
Root Cause Analysis	Fluid Dynamics
Vibration Analysis	ISI/IST
PM Optimization	Materials Engineering
LCM	Metallurgy
Elastomers	Planning Digital Controls Upgrades
AO Vs/MO Vs	Integrated Performance Monitoring
Electrical Cables	Rotating Equipment Diagnostics
Failure Analysis	Corrosion Issues
Flow Accelerated Corrosion	CFD/FEM/RDA tools
Fatigue Analysis	Single Point Vulnerability Analysis
Predictive Maintenance	Waterhammer

For more information on this capability, Please contact us at (617) 204-1000 or via e-mail at sales@altransolutions.com