



PROJECT PROFILE: NUCLEAR



RIAM Model Identifies Potential To Save Millions at Nuclear Plant

Integrity Management

Situation

When one of its main generator rotors began to deteriorate, the STP Nuclear Operating Company (STP) contracted with ABS Consulting to apply risk-informed asset management (RIAM) process and associated software to perform a cost-benefit-risk decision analysis. STP and ABS developed the RIAM process and software specifically for nuclear power plant facilities.

Approach

RIAM is essentially a probabilistic cash flow or value stream model for a target facility or fleet of facilities. It is designed using a systems analysis approach to provide a consistent method and tool for continuously predicting facility risk-informed performance and monitoring associated actual performance. It is used as a fundamental decision support tool for facility resource management. In this study, ABS Consulting evaluated several options for replacing and/or refurbishing the main generator rotor.

Result

This RIAM model application considered impacts on all facets of main generator rotor refurbishment costs, scheduling, production impacts and safety impacts. The RIAM model was applied to identify and characterize an optimum rotor refurbishment option for the plant.

Benefits

The recommended refurbishment option was predicted to result in a net benefit of approximately \$33 million over the remaining life of the plant.