



Sargent & Lundy LLC

Combined-Cycle Plant Life Assessments

ASSESSMENT EXPERTISE

- Plant Condition Assessments
- Corrosion Recommendations
- Facility Improvements
- Performance Testing
- Equipment Enhancements
- Life Extension Programs
- Electrical Degradation Reviews
- Aging DCS and I&C Issues
- Redundancy Evaluations
- Heat/Water Balance Changes
- Environmental Concerns
- O&M Best Practice Reviews
- NERC/GADS® Benchmarking
- Cyber Security Evaluations
- Alternate/Dual Fuel Design Feasibility Studies
- Remaining Useful Life (RUL) Studies
- Inventory Analysis
- Root-Cause Analyses (RCAs)
- Water Chemistry Analysis

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Most combined-cycle power plants—regardless of scheduled gas turbine, steam turbine, and other major equipment O&M practices—display signs of age and fatigue anywhere from 10 to 20 years after their initial commercial operation date, often more quickly in harsh ambient conditions. Depending on the original power plant's design and construction methods, and the suitability of the installed equipment for the plant's actual operating regimes, your combined-cycle power plant may be approaching the end of its original design life much sooner than expected.

25 to 30 years is a typical expected operating life for a combined-cycle power plant. Extensive maintenance work, component replacements, or failures in the plant's first decade of operation can often be tied to issues with its original engineering, procurement, or construction work. Failures after the plant's midlife may be the result of maintenance practices, harsh environmental conditions, or new power generation regimes. Changes to interconnecting conditions can also pose problems to successful operations.

Sargent & Lundy can dispatch a team of independent specialists to identify and analyze your plant's stress points, uncovering potential risks to continued successful operations.

If the end of your plant's design life is approaching, extension programs or other alternatives may offer a potential means to establish an end-of-life timeline better suited to your current needs. Or you can even use our many areas of expertise to tackle specific operating issues.

Call or email us today to find out how we can help.