



# History of Successful Assessment

## CASE STUDY

**PROBLEM:** At a large utility company, their turbine oil's performance characteristics were out of specification resulting in the accumulation of foam and emulsified water being present in the oil circulation system. This ultimately compromised the lubrication of the turbine and system.

**PREVIOUS PRODUCT/METHOD:** The root cause of the problem was the current practice of adding an engine oil supplement to the turbine rotor shaft and bearing assembly to "facilitate" alignment and rotation of the turbine rotor during annual maintenance and overhaul service. The combination of the engine oil supplement with the turbine oil resulted in diminished lubricant performance. The turbine oil's characteristics to dissipate foam and separate water were compromised to the extent that excessive foaming and emulsified water were being circulated throughout the system. This contributed to additional concerns and problem in the operation of the system

**C&C SOLUTION & IMPLEMENTATION:** C&C determined the problem was the "standing" lubrication practice utilized in the plants industry wide for years. BAL-200 is created by C&C Oil to fix the lubrication issues created by the mixing of the engine oil supplement and the turbine oil. BAL-200 is developed to be applied to the turbine rotor shaft and bearing during the annual maintenance repair and overhaul. Additionally when BAL-200 is mixed with the turbine oil, the performance characteristics of the turbine oil did not diminish. Currently BAL- 200 has been adopted by turbine manufacturers Siemens, Westinghouse, GE, Mitsubishi and ABB for use in-conjunction with turbine maintenance and overhauls.

**UPTIME & DOLLARS SAVED BY C&C SOLUTION:** BAL-200 reduces production time lost during turbine maintenance which with a large steam turbine can generate revenues of \$1,000,000 per day. BAL-200 eliminates the need to dispose and flush-out 8,000 gallons of contaminated oil in the circulating system and the cost of replacement oil of \$40,000.00 plus.