

TERRY W. RETTIG, P.E.
Metallurgical Engineer and Vice President

SPECIALIZED PROFESSIONAL COMPETENCE

Mr. Rettig is currently Vice President of Power Generation and has responsibilities for marketing and engineering power plant projects worldwide. Areas of expertise include asset evaluation, life management, failure analysis of power plant, automotive, and aircraft components; materials selection and methods of fabrication and processing; corrosion and metallurgical failure of alloys; nondestructive inspection by acoustic emission; and preparation and examination of metallurgical specimens.

Experience includes developing and implementing analytical and experimental methods for determining conditions and remaining useful life of equipment with emphasis on power plants.

Recent work includes creep damage and remaining life of superheater and reheater tubes; failure analysis of nuclear and fossil power plant components, including turbine blades, shafts, boilers, discs, pulverizers, waterboxes, and steam generators; analysis of failure data to identify recurrent and generic problems; failure analysis and materials selection for sewage sludge heat exchangers; analysis of reheat cracks and review of weld procedures; accident reconstruction; and metallographic and fractographic analyses.

EDUCATION AND PROFESSIONAL BACKGROUND

- B.S. (Engineering), California State University (1967)
- Professional Engineer, Corrosion No. 687
- Two Patents Granted
- Eight Invention Reports Issued
- Member, American Society for Metals
- Member, National Association of Corrosion Engineers
- Chairman, Workshop on Low Pressure Steam Turbine Blade Failures Sponsored by the Electric Power Research Institute, Detroit, Michigan (June 28 29, 1978)
- Co Chairman, Seminar/Workshop on Failures and Inspections of Fossil Boiler Tubes, Sponsored by Florida Power & Light Company/Electric Power Research Institute, Bal Harbour, Florida (April 11 13, 1983)

SELECTED REPORTS, PUBLICATIONS, AND INVITED LECTURES

Assessment of Metallurgical Damage to Flue Gas Coolers E-323A and E 324A During Normal Operation and Loss of Feedwater Flow, with S. Torbov, APTECH Report AES 05065845-2-1 (July 2005).

Preliminary Report for Evaluation of the New England Electric System, with T. Burnett, et. al., APTECH Report AES 97043032-2-1 (April 1997).

TubeMod® Analysis Saves Capital Expense of Reheater Replacement and Removes Heat Rate Penalty on a 624 MW Coal-Fired Unit, with K. Hara (August 1995).

TubeMod® Technology for Reduction of Tube Failures, with K. Hara (May 1995).

Determination of Overall Condition of Boiler Unit 9 at Riverside Generating Station, with T. Burnett, APTECH Report AES 89111150-2-2 (April 1991).

Investigation of Three Tubes Removed from the Condenser at San Juan Plant, Unit 8, APTECH Report AES 90101345-2-1 (January 1991).

Failure Investigation of Superheater Tubes at Syncrude Canada, Ltd., APTECH Report AES 90111352-2-2 (December 1990).

Improved Superheater Component Longevity by Steam Flow Redistribution, with K. Hara et. al., EPRI RP1893-13 Research Project, APTECH Report AES 89041059-6-1, (December 1990).

Failure Investigation of Superheater Tubes at Syncrude Canada, Ltd., APTECH Report AES 90111352-2-1 (November 1990).

Examination of Failed Secondary Superheater Tube Removed from Northeastern Station, Unit 2, APTECH Report AES 90101330-2-1 (October 1990).

Metallurgical Examination of Two Failed Superheater Tubes Removed from Northeastern Station, Unit 1, APTECH Report AES 90091321-2-1 (October 1990).

Reheater, Secondary Superheater, and Tertiary Superheater Results, Southern California Edison Company, Alamitos Generating Station, Unit 6, with S. Nelson and K. Ecoffey, APTECH Report AES 90021196-2-1 (May 1990).

ADDITIONAL INFORMATION

For more information regarding APTECH's personnel and services, please contact our Corporate Headquarters in Sunnyvale, California (USA) at 408/745-7000 or visit our website (www.aptecheng.com).