

Cost Effective Life Management of Turbine Plant

Steam turbine plant operators need a cost effective approach to plant life management in order to optimise their returns. ERA Technology provides objective, impartial advice and support in turbine plant operation and has wide experience of delivering life management services on steam turbine components produced by a variety of OEMs from around the world.

Applications

ERA's methodology has been applied to the full range of turbine components including:

Rotating Static

- HP/IP rotors
- LP rotors
- Blading
- Discs

Static

- Steam chests
- Piping
- Casings
- Diaphragms.

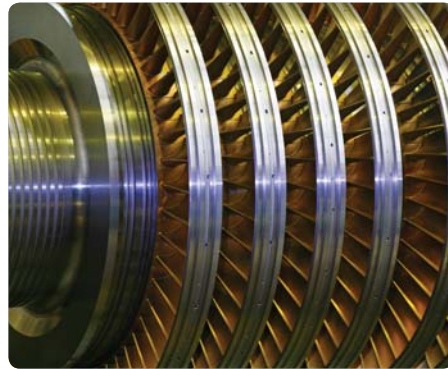


Benefits

By delivering steam turbine consultancy services, Cobham assists clients to:

- Decrease downtime
- Ensure safe operation
- Extend life of plant with confidence
- Optimise maintenance costs.

ERA's services are tailored to meet the individual requirements of different steam turbine operators and owners.



Condition Assessment

ERA Technology has developed independent condition assessment strategies based on its own analysis methodologies and experience to optimise inspection work scopes and outage programmes. A complete range of inspection services is provided to generate secure data on which integrity analysis can be based.

Failure Investigation

Determination of the cause of failures is important, either to avoid subsequent problems or to support litigation to recover losses. ERA carries out investigations for both operators and other interested parties, typically involving site visits, analysis of operational factors, stress and vibrational assessment, and materials properties and chemical analysis.

Integrity Analysis

Whilst components may have nominal design lives, it is possible that by the application of less conservative criteria and/or the use of more relevant materials data, it is feasible to extend the life of a component. This gives the benefit of extended operating periods and can result in shorter downtime.

ERA utilises sophisticated computational methods to analyse the structures and determine safe operational regimes, supported by formal risk assessments.

Operational Issues

The manner in which turbine plant is operated can have a significant effect on its efficiency and life. Operational conditions are often defined by contractual supply agreements and it is important that plant operators are able to balance the effects of these conditions on the life of plant in an informed way. ERA provides advice and guidance to assist plant operators in this process.

ERA Technology Ltd

Since its foundation in 1920, ERA has evolved from its roots as a research association to become a centre of excellence in engineering technology with a strong brand and reputation, sitting at the forefront of specialist asset integrity service provision.

ERA is committed to delivering professional services to our customers across all business sectors, assisting them in reducing technical and commercial risk, improving the operational performance of their assets and developing and enhancing the competitiveness of their products and systems.

ERA Offers the Following Services:

AccessERA

(Publications, Training Courses, Newsletters & Information Services)

EMC and Radiocomms

(EM Management, Measurement and Modelling)

Engineering Consultancy Services

(Condition Assessment, Power Systems Analysis, ERACS Software, LV Electrical Product Testing, Failure Analysis and Materials & Design Consultancy)

Reliability and Failure Analysis

(Forensic, Analytical and Environmental Compliance Services)

System Safety Engineering and Assurance

(ISA, Safety Management Consultancy, Safety Process Audits, Software Assurance, Product Safety Assessments and Standards Compliance, RAM Engineering and Assurance).

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