

“Overview of Typical Boiler Failures and Life Assessment Techniques”

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Abstract

This paper provides an overview of the most common pressure part failures that occur in high pressure Utility and Industrial boilers. A gallery of photographs are included.

In order to minimize the occurrence of these failures a variety of non-destructive techniques have been developed. The basic operating principles will be reviewed and a tabular cross reference summarizing the applicability of each technique to specific boiler components will be presented.

These techniques can provide quantitative data that is used in remaining life assessment analysis. Some Case studies will be presented demonstrating the combined testing and computational capabilities available.