

Assessment Methods and Residual Life Testing

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ABSTRACT:

The typical methodology for high temperature remaining life assessment, as in API579-1/ASME FFS-1, is based on minimum rupture data. Whether obtained from industry data or from post exposure testing, the options available as the minimum life is approached are limited. The minimum remaining life calculation provides little insight as to the risks of exceeding the minimum life, or whether there is any basis for life extension based on plant down-rates after minimum life has been exceeded. An alternative is to make use of all the available material data in a probabilistic assessment. The paper shows how this approach assists the risk management of aging plant with pressure and or temperature de-rates, and the interpretation of accelerated post-exposure tests.

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