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General Comment

1. Section 5.3 Surface Finish
This comment is about the sentence 'Limited data in LWR environments on specimens that were intentionally roughened indicated that the effects of surface roughness on fatigue lives were the same in air and water environments for austenitic SSs, but were insignificant in water for carbon and low-alloy steels, particularly in NWC BWR environments.'.

It is better that the references on this topic are shown.

2. Section 5.4 Load Sequence
This comment is about the sentence 'Therefore, because the fatigue ε-N data used to develop the ASME Code Section III fatigue design curves were obtained from fatigue tests at constant strain amplitudes, the effects of loading sequence on the fatigue lives and the fatigue limits of materials were included in the ASME air design curves.'.

Current fatigue design curves do not seem to include design margin for load sequence effect. Is the description of the sentence correct?

3. Section 5.5 (d) Air Fatigue Design Curve Adjustment Factors Summarized
This comment is about the sentence 'Factors ranging from 1.0 to 2.0 were used to incorporate the possible effects of load histories on fatigue lives in the low-cycle regime.'.

The technical basis for the range from 1.0 to 2.0 is required to be shown.

4. Appendix C, Section C3
This comment is about the equation which calculates the strain rate in the descriptions about the Average Strain Rate Approach.

The description indicates that the Young's Modulus is determined at the maximum metal temperature. In this case, a higher value of the strain rate is calculated comparing with the case employing the Young's Modulus at the average metal temperature. To estimate the conservative Fen, the Young's Modulus determined at the maximum metal temperature is not considered to be relevant. It is better to employ the Young's Modulus at the average metal temperature for example.