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**Subject:** Query: Materials Review for the JRF-90Y-950K package containing the Spectrum Converter  
**Date:** Friday, February 04, 2022 3:53:00 PM

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Mike,

We have the following question on the temper used for the aluminum in the spectrum converter (and the hold down part):

1. Either:
  - a. Revise the safety analysis report (SAR) to clarify the temper for the A6061P material of the spectrum converter and fuel element hold down part as the T6 temper used in the structural analyses, or
  - b. Revise the SAR to use more conservative values for the mechanical properties in the structural analyses reflective of the softest temper of the A6061P material.

Otherwise, NRC will suggest that DOT specify the temper for these two aluminum materials as a condition of the revalidation.

NRC staff reviewed the material properties specified in (II)-Table.A.6 for A6061P. The values used in the structural analysis for the spectrum converter and the fuel element hold down part are specific to the T6 temper of the material, which is the hardest temper. The application does not specify the temper of the material, and thus the SAR creates the possibility for nonconservative analysis, should the A6061P material be softer than the temper assumed in the analysis. The SAR currently does not demonstrate that other tempers are acceptable for this material. If it acceptable that NRC suggests DOT add this temper as a condition of the revalidation, then no further SAR submittal would be needed.

This is to show compliance with the regulatory requirements in paragraphs 722, and 727 of Specific Safety Requirements No. SSR-6 (Rev. 1).

Please note that due to the urgent need for NRC review, the NRC will be sending questions as we get them, rather than our standard process of sending all the questions as a single request for additional information.

Thanks  
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