

## **NAC-UMS-MY Amendment - Additional Questions and Issues**

### Failed Fuel

1. Regarding the Engineering Evaluation, identify the types of analyses that will be included in this evaluation and the criteria that the licensee should use to determine whether the cladding can retain fuel pellets and particles. Further, the definition of engineering evaluation should be expanded to include an analysis of the impacts of the handling loads and the potential for fuel oxidation during vacuum drying and helium cooldown conditions.
2. The term "skeletal damage" was removed from the definition of intact fuel. Please describe how fuel assemblies with damage to the grid straps, etc., will be classified and treated.
3. Update Table 8.1.4-1 to be consistent with Table 2.1.3.1-1, Rev. 00A.

### High Burnup Fuel

4. NAC did not provide an evaluation of the cladding mechanical properties for fuels having burnups above and below 45 GWd/MTU. This information is critical to their approach to show why the MY high burnup fuels are like lower burnup fuels. Please provide us with information on the tensile and yield strengths and uniform and total elongation of both MY high and low burnup fuels.
5. Regarding the data in Table B1 of the YAEC-1883P report ("Evaluation of Maine Yankee Fuel Rod Oxide Thickness and Wear Measurements"), identify the units that correspond to the "Discharge Rod Burn", "Elev. of Max. Oxide" and "Elevation" values.
6. Provide an estimate of the number of rods in an assembly that may have oxide thicknesses greater than 80 microns. Is the total number of rods greater than 1%?

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