



**Department of Energy**  
Washington, DC 20585

August 2, 2016

Attention: Document Control Desk  
Mark Lombard, Director  
Division of Spent Fuel Storage and Transportation,  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mark Lombard:

The U.S. Department of Energy (DOE) requests an amendment of U. S. Nuclear Regulatory Commission Certificate of Compliance (CoC) Number 9330, for the Model ATR-FFSC package (NRC Docket 71-9330) to add older Mark IV, V, and VI fuel elements and loose plates to the list of authorized contents for ground transport.

The Advanced Test Reactor (ATR) fuel element manufacturing processes have evolved over the years from a Mark IV to the Mark VII design. DOE's ATR at the Idaho National Laboratory (INL) is planning to ship older Mark IV, V, and VI elements from INL back to the fuel fabricator, BWX Technologies, Inc., for fuel recovery. These high enrichment elements and loose plates are similar dimensionally and in construction to the Mark VII elements. These older fuel elements are bounded with respect to reactivity and an upper fissile content of U-235 by ATR Mark VII elements evaluated in the Safety Analysis Report (SAR) and authorized in the current CoC. They have identical channel gaps and fit, as is, into the existing FFSC fuel handling enclosures for the Mark VII and Loose Plate handling enclosures. Specifically, DOE requests the following changes to Revision 8 of the CoC.

- 5.b(1) first paragraph, first sentence: Change "*Unirradiated ATR Mark VII fuel.*" to "*Unirradiated ATR Mark IV, V, VI and VII fuel elements.*"
- 5.b(1) last paragraph (page 5) first sentence: Change "*ATR loose fuel plates:*" to "*ATR Mark IV, V, VI and VII loose fuel plates:*"

Due to the simple nature of this change, DOE requests the CoC be amended based on this letter and in lieu of a revision to the Safety Analysis Report (SAR); however, if NRC disagrees and requires a revision to the SAR, please notify DOE as soon as possible.

If you have any questions or need more details please call at 301-903-5513 or [james.shuler@em.doe.gov](mailto:james.shuler@em.doe.gov).

James M. Shuler

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