



April 30, 2002  
NRC:02:023

Document Control Desk  
ATTN: Chief, Planning, Program and Management Support Branch  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Request for Review of BAW-10238(NP) Revision 0, MOX Fuel Design Report**

Ref.: 1. Letter, James F. Mallay (Framatome ANP), to Document Control Desk (NRC), "Request for Review of BAW-10239(P), Revision 0, Advanced Mark-BW Fuel Assembly Mechanical Design Topical Report," NRC:02:022, April 30, 2002.

Framatome ANP requests the NRC's review and approval for referencing in licensing actions the topical report BAW-10238(NP) Revision 0, MOX Fuel Design Report. One CD containing a non-proprietary version of the report is enclosed. We request that the NRC approve this report by May 1, 2003.

The U. S. Department of Energy (DOE) is implementing a program to dispose of a significant portion of the nation's surplus weapons-grade (WG) plutonium by reconstituting the plutonium into mixed-oxide (MOX) fuel rods and using the fuel in commercial light water reactors. Accordingly, the DOE has contracted with Duke COGEMA Stone & Webster (DCS) to design and license the MOX fuel, fabricate lead assemblies, irradiate the lead assemblies, and ultimately qualify the design for batch irradiation. The Framatome ANP topical report BAW-10238(NP) supports this program.

The fuel design to be used in the material disposition program is the Mark-BW/MOX1 design. This 17x17 fuel assembly utilizes the Advanced Mark-BW fuel assembly structure (Reference 1) with a MOX fuel rod design. The fuel rod contains MOX pellets based on the proven rod design and pellet specification used by Framatome ANP for European MOX fuel.

This MOX Fuel Design Report confirms the safe and reliable operation of the fuel design that will be used for the disposition of the WG plutonium. It demonstrates that the Mark-BW/MOX1 fuel assembly is acceptable for batch implementation up to a maximum fuel rod burnup of 50,000 MWd/MThm.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'James F. Mallay for'.

James F. Mallay, Director  
Regulatory Affairs

/kmh

DO45

Enclosures

cc: R. Caruso  
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