



**FRAMATOME ANP**

An AREVA and Siemens Company

**FRAMATOME ANP, Inc.**

November 4, 2004

NRC:04:060

Office of Nuclear Regulatory Research  
ATTN: Ralph O. Meyer, Senior Technical Advisor  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Testing of M5 Irradiated Cladding**

Dear Ralph:

Framatome ANP understands that defueled, irradiated Zirlo samples are being shipped from Studsvik to Argonne in early 2005 to support the High Burnup Fuel LOCA test program. Because shipping and testing of these defueled samples is expected to precede testing on fueled, advanced alloy cladding, Framatome ANP believes that the Argonne program would be better balanced by including specimens of M5 in this phase of the test. As a result of our interest in having M5 included, we have identified an M5 rod, specified below, that is available at Studsvik and from which samples of M5 irradiated cladding can be extracted. This cladding is nearly identical to the M5<sup>®</sup> used in the US.

The fuel rod that should be used for this testing was discharged from Ringhals 4 and was irradiated to 62.8 GWd/mtU rod average burnup. It is identified as rod E14 from assembly 50T. Material from the upper portion of this rod is available and would have a somewhat higher burnup and relatively high corrosion for M5.

The handling and testing of this M5 material should be conducted under the provisions of the MOU that was executed by Framatome ANP and NRC in 2002. Although this MOU has officially expired, we have continued to work to this agreement until a revision, which is expected to address irradiated material, is finalized. For the purpose of these initial tests, we believe the existing MOU is adequate to ensure continued cooperation.

Please let us know what else may be needed to include these M5 samples in this phase of the testing program. We are available to discuss the details at your convenience. You may contact Bert M. Dunn (434-832-2427) or Roger Reynolds (434-832-3659) to initiate these discussions.

Framatome ANP looks forward to continuing to work with ANL and the NRC on these projects.

Very truly yours,

James F. Mallay, Director  
Regulatory Affairs

cc: M. J. Billone (ANL)  
Project 728



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cc: M. J. Billone (ANL)  
Project 723