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VIA FEDERAL EXPRESS

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AHW/90/032/EDS

Mr. Charles E. MacDonald, Chief
Transportation Branch
NMSS:SGTB, Mail Stop WF4E4
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Mr. MacDonald:

Nuclear Assurance Corporation would like to supplement an amendment request to the NLI-1/2 cask Certificate of Compliance 9010, Revision 27, that was submitted on February 6, 1990 (letter AHW/90/016/EDS from A.H. Wells to C.E. MacDonald). The current license allows a burnup of up to 55,000 MWD/MTU, and NAC has requested that the burnup limit be extended to 60,000 MWD/MTU to facilitate shipments of rods under high burnup test programs. The integrity of the fuel cladding is one of the research topics of these test programs, and NAC is concerned that the cladding of such high burnup rods might fail during a shipment. If cladding failure were to occur, the cask cavity could be contaminated and one of the barriers that prevent release of radioactive material to the environment could be compromised. NAC would prefer to ship such high burnup rods in the NLI-1/2 cask Configuration A, which adds an extra cylinder of stainless steel inside the cask cavity. This extra cylinder encloses the fuel, and is drained and dried through valves much like the cask itself. Configuration A is used to ship known failed assemblies, and will contain any material released by 1 to 25 rods in a rod shipment.

NAC requests that the amendment to the Certificate of Compliance 9010 for the high burnup rods specify that rods with burnups in excess of 45,000 MWD/MTU be shipped in Configuration A only. Rods with burnups less than or equal to 45,000 MWD/MTU are a standard commodity in current reactor fuel cycles, and their cladding integrity is reliable if they did not fail in service within the reactor. Such lower burnup rods could be shipped in either Configuration B (the standard cask PWR or BWR configuration) or Configuration A (the failed fuel configuration).

Please contact me at (404) 447-1144 if you have any questions or require additional information.

Sincerely,

NUCLEAR ASSURANCE CORPORATION

Alan H Wells
Alan H. Wells, PhD
Chief Engineer

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