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71-9290
71-9310

MDS Nordion
Science Advancing Health

July 21, 2004

Your file: 71-9290, 71-9310

Mr. Shawn A. Williams
Project Manager
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
Mail Stop: 13 D13
United States Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD
20852-2738

RE: Request for Additional Information Related to the Certificate of Compliance No. 9290 MDS Nordion's Model No. F-430 and Certificate of Compliance No. 9310, MDS Nordion's Model F-431

Dear Mr. Williams:

This letter is in response to the U.S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI) dated July 20, 2004. The additional information requested relates to the tiedown collar joint and additional calculations for the required bolt engagement.

The 4 bolts used on the tiedown collar are in tension. In order to achieve a full strength connection, the bolt threads are required to be fully engaged. As such, they are required to pass through the nut.

The process for specifying the bolts is described in Appendix 2.10.3 of IN/TR 1608 F430(2e) for the F-430 and in Appendix 2.10.2 of IN/TR 1913 F431(2) for the F-431. The F-430 is heavier and represents the worse case. For both packages, the analysis assumed a single bolt carries the tensile load. The safety factor for the heavier F430 was calculated to be 1.8. Therefore, the safety factor with the two bolts installed joint is 3.6.

The attached image shows the geometry of the joint. The thickness of the flange and the gap between the flanges is shown on the attached photo. The gap was measured on serial

NMSS01

number 8 and found to range between 0.5 and 0.63 inches. Manufacturing variations may result in differences in the gap measured between model and serial numbers.

I trust this information will enable the staff to complete their review.

If you have any questions or require further information please feel free to contact me by telephone at (613) 592-3400 extension 2421 or by email at mcharette@mds.nordion.com.

Yours sincerely

Marc-André Charette
International Transport & Nuclear Initiatives
Manager, Regulatory Affairs

Attached: Image of F431 Serial No 8 and image of tiedown closure geometry

Copy to: Mike Krzaniak, Blair Menna, Luc Desgagne, MDS Nordion