

71-9258

447 March Road
Ottawa, ON K2K 1X8
Canada

Tel: +1 613 592 2790
Fax: +1 613 592 6937
www.mds.nordion.com



April 20, 2004

Ms. Julia M. Barto
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: Certificate of Compliance No. 9258 for the Model No. F-294
Request for Additional Information**

Dear Ms. Barto:

This letter is in response to the U.S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI) dated April 12, 2004. Please find attached the Response to the Request for Additional Information.

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

A handwritten signature in black ink, which appears to read 'Marc-André Charette', is written over a horizontal line.

Marc-André Charette
International Transport & Nuclear Initiatives
Manager, MDS Nordion

Attached: Response to the Request for Additional Information.

Copy to: Mike Krzaniak, Jeff Ramsay, Luc Desgagne, MDS Nordion

NM5501

Response to the Request for Additional Information
Model No. F-294 Package
Docket No. 71-9258
April 12, 2004

Chapter 2: Structural

- 2-1 Justify the inclusion of a vertical reaction force in the chocks as presented in Table 2.10.3-T2, of Appendix 2.10.3. Staff notes that the chocks are capable of resisting only horizontal forces.

This information is needed to determine compliance with 10 CFR 71.45(b).

Response:

The vertical force listed in Table 2.10.3-T2 is the positive reaction force to the edge of the skid pressing into the trailer bed. With the application of the g forces, the package tips about node 7, the right front chock. The tipping force is counteracted by the chocks in the horizontal direction, as noted above, and by the bed of the trailer in the vertical direction. Node 7 is the only chock position restrained in the vertical direction and represents the least constrained condition possible for the model to be stable. If node 7 were not restrained in the vertical direction, free body motion would occur rendering the model unstable.

Response to the Request for Additional Information
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- 2-2 Provide the coordinates of the chock reactions and tie-down locations used in the finite element model described in Section 3 of Appendix 2.10.3, and illustrated in Figure 2.10.3-F4 of Appendix 2.10.3

This information is needed to determine compliance with 10 CFR 71.45(b).

Response:

The coordinates of the chock reactions and tie-down locations used in the finite element model described in Section 3 of Appendix 2.10.3, and shown in the attached figure are as follows;

Node	X (inches)	Y (inches)	Z (inches)
1	-48.00	60.00	4.00
2	-48.00	-60.00	4.00
3	48.00	60.00	4.00
4	48.00	-60.00	4.00
5	-39.00	39.00	0.00
6	-39.00	-39.00	0.00
7	39.00	39.00	0.00
8	39.00	-39.00	0.00
9 (C of G)	0.00	0.00	43.90
10 and 14	-26.00	26.00	74.13
11 and 15	-26.00	-26.00	74.13
12 and 16	26.00	26.00	74.13
13 and 17	26.00	-26.00	74.13

Note that there is some latitude in the position of the tie-downs on the trailer bed, since the minimum safety factor in the modeled configuration is 2.2, where a safety factor only just above 1.0 is all that is required. The X and Y positions of the tie-downs can vary by approximately a foot in either direction (symmetrically) and the Z position can vary significantly, before the safety factor falls below 1.0.