



June 27, 2016

Mr. Pierre M. Saverot, Project Manager, Spent Fuel Licensing Branch  
Division of Spent Fuel Management—Office of Nuclear Material Safety and Safeguards (NMSS)  
U.S. Nuclear Regulatory Commission  
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**SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE MODEL NOS. AOS-025A, AOS-050A, AOS-100A, AOS-100B, AND AOS-100A-S PACKAGES**

USNRC References: Docket No. 71-9316 and TAC No. L25099  
AOS Reference: FM9006.1 062016-002

Mr. Saverot,


In response for your Request for Additional Information (RAI) dated May 25, 2016, Alpha-Omega Services, Inc. (AOS) is pleased to provide the following information.

In response to your request for additional detailed technical information regarding the stress analysis of the Axial Shielding Plates for the AOS-100A and AOS-100A-S packages (RAI 2-1) and for the stress analysis of the Cavity Spacer Plate of the for the AOS-100A and AOS-100A-S packages (RAI 2-2), we have revised the Safety Analysis Report. We have revised Appendix 2.12.15 to include new Finite Element Analyses of the Axial Shielding Plate and Cavity Spacer Plate. We have also added an analysis of the AOS-050A Axial Shielding Plate. The revised analyses address the specific issues that you identified in your RAI.

Please find attached AOS-FM9054, "Radioactive Material Transport Packaging System Safety Analysis Report for Model AOS-025, AOS-050, and AOS-100 Transport Packages" (SAR), Rev. H-2.

I trust that this information is satisfactory and addresses your concerns.

Best Regards,



Troy Hedger, President  
Alpha - Omega Services, Inc.

Attached:  
SAR FM9054, Revision H-2  
List of Changes

AOS FM9054, Rev H-2 Updates – Tracking page number, heading level, paragraph number, line number; what it was, what it is, and justification (if needed)

Page	Heading/Item	Para #/Item	Line #/Item	What it was (Rev H-1)	What it is (Rev H-2) Justification (if needed)
<b>FrontMatter</b>					
i	Cover	–	–	“Rev. H-1, March 11, 2016”	“Rev. H-2, June 27, 2016” (Note to reviewer: Automatically applied to all footers. Due to software constraints, SAR page footers might/might not include a revision bar indicating this change. Additionally, the revision bar might span both lines of the footer.)
iii	Revision History	–	–	–	<Added Revision H-2, June 27, 2016 entry.> “Updated in response to NRC RAI.”
<b>Chapter 1</b>					
1-10	1.2.2	4	2	“for non-exclusive transport.”	“for non-exclusive transport, except for Co-60-C quantities. (Refer to Table 1-2.)”
1-11	Table 1-2	Footnotes –	– 6 <sup>th</sup> table row	--	Added footnote e, “Must be shipped by Exclusive Use.” <Removed empty table row.> <Caused surrounding footnotes to renumber due to location of this footnote and the others within the table.>
<b>Chapter 2</b>					
2-50	2.5.3	1 <sup>st</sup> subbullet of 3 <sup>rd</sup> bullet	–	“• Stress Analysis of Axial Shielding Plate – Models AOS-100A and AOS-100A-S”	<Deleted bullet.>
2-65	2.5.3.3	–	–	–	<Added new note.> “NOTE: Analyses of the axial shielding plates (Models AOS-050A, AOS-100A, and AOS-100A-S) and cavity spacer plates (Models AOS-100A and AOS-100A-S) are provided in Appendix 2.12.15.”
2-69 and 2-70	2.5.3.3.2	All	–	–	<Deleted entire section. > Replaced with “Deleted – Refer to Paragraph 2.12.15.5.”

Page	Heading/Item	Para #/Item	Line #/Item	What it was (Rev H-1)	What it is (Rev H-2) <i>Justification (if needed)</i>
2-942v through 2-942ap	2.12.15	All	–	–	<Replaced Appendix with new expanded analysis of Model AOS-050A, AOS-100A, and AOS-100A-S Axial Shielding Plates and Model AOS-100A and AOS-100A-S Cavity Spacer Plates.>
2-944	--	[2.33]	–	–	<Added new references.> [2.33] American Society of Mechanical Engineers, ASME Boiler and Pressure Vessel Code, Section III, Division 1, 2004 Ed., No Addendum. [2.34] ANSYS, Inc. ANSYS documentation release 15.0, November, 2013.
<b>Chapters 3 and 4 – No changes</b>					
<b>Chapter 5</b>					
5-9	5.3.1.2	3	8-9	'Appendix 2.12.15, "Shielding/Spacer Component Evaluation – Models AOS-050A, AOS-100A, and AOS-100A-S,"'	'Paragraph 2.12.15.4, "Axial Shielding Plate Stress Evaluation – Model AOS-050A,"'
5-9	5.3.1.2	4	5-6	'Paragraph 2.12.1, "Stress Analysis of Axial Shielding Plate – Models AOS-100A and AOS-100A-S,"'	'Paragraph 2.12.15.5, "Axial Shielding Plate Stress Evaluation – Models AOS-100A and AOS-100A-S,"'
5-10	5.3.1.2	1	9-10	'Paragraph 2.12.1, "Stress Analysis of Axial Shielding Plate – Models AOS-100A and AOS-100A-S,"'	'Paragraph 2.12.15.5, "Axial Shielding Plate Stress Evaluation – Models AOS-100A and AOS-100A-S,"'
5-10	5.3.1.2	1		'Appendix 2.12.15, "Shielding/Spacer Component Evaluation – Models AOS-050A, AOS-100A, and AOS-100A-S,"'	'Paragraph 2.12.15.6, "Cavity Spacer Plate Stress Evaluation – Models AOS-100A and AOS-100A-S,"'
<b>Chapter 6 – No changes</b>					
<b>Chapter 7</b>					
7-7	Table 7-1	1 <sup>st</sup> body row	4 <sup>th</sup> and 5 <sup>th</sup> columns	<empty 4 <sup>th</sup> column> "mandatory"	<Removed empty table column.> "mandatory"
<b>Chapters 8 and 9 – No changes</b>					