



February 5, 2021

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk / Pierre Saverot - STLB
Director, Division of Fuel Management – DFM
Office of Nuclear Material Safety and Safeguards - NMSS
11555 Rockville Pike
One White Flint North
Rockville, MD 20852

SUBJECT: AOS REQUEST TO RENEW CERTIFICATE OF COMPLIANCE 9316

USNRC Reference: EPID L-2021-LLA-0007, Docket No. 71-9316

AOS Reference: FM9006.1-012021-023

Mr. Saverot:

Alpha-Omega Services, Inc. (AOS) would like to request the renewal of Certificate of Compliance No. 9316 which will expire on July 31, 2021.

We would also like to request approval for several minor changes, as described below.

1. We would like to clarify the requirements for the Inner Container and shoring in Condition 11 of the C of C. Our understanding is that the requirements apply only to structural components since the condition ensures that the radioactive material does not shift and cause an increase in the package external dose rates. We recently made a shipment where our customer wanted to seal with Inner Container with an O-Ring. In this case, it was unclear whether the presence of an O-Ring would violate Condition 11. We propose the following change to Condition 11:

"The inner container, by design or with additional shoring, shall be immobilized to prevent both radial and axial movements during normal conditions of transport. Shoring devices must be comprised of materials compatible with the radioactive contents and the cask cavity material. All structural shoring materials within the cavity must have a melting point greater than (i) 600°F for Co-60 in metallic form and Cs- 137 in the form of cesium chloride and (ii) 900°F for all other contents."

2. Add brass as alternate material for non-containment threaded plugs on the AOS-100 Cask (drawing 105E9712 item 26 and 105E9719 item 26). The threaded plugs affected are not part of the containment system and are used only during leak testing.
3. Reduce torque on the Port Covers for the AOS-100 Cask. The Port Covers are outside the Containment Boundary and their torque is not safety-related. We would like to decrease this torque from 55 lb-ft (75 N·m) to 25 ft-lb (34 N·m) on drawings 105E9712 and 105E9719.

4. Reduce torque for AOS-025 and AOS-050 Shipping Cage screws from 35 ft-lb (47 N-m) to 17 ft-lb (23 N-m). This torque is appropriate for 3/8" screws. Addition of an optional material, Nitronic 60 per ASME SA-193, ASTM A193 Grade B8S (UNS S21800) for the Shipping Cage Screws. The analyses updated per Item 8, below consider the optional material. This change applies to drawings 166D8142 (Item 8) and 105E9718 (Item 8). This request was approved for the AOS-100 as part of CoC 9316 Revision 9.
5. Correct the material specification for AOS-100 Trunnions on drawing 105E9719 item 5. In order to be consistent with Table 2-18, the material specified on the drawing has been changed from ASME SA-240/ASTM A240 to ASME SA-479/ASTM A479.
6. Decrease Safety Classifications for some items. We have discovered that some components have higher Safety Classifications than necessary. The revised Safety Classifications are noted on the revised Certification Drawings and a brief justification for the changes is provided in the attached list of changes.
7. Correct the AOS-025 foam density on drawing 105E9722 (AOS-025 Impact Limiter). The foam is incorrectly identified as FR3720 and should be FR3718, as specified in SAR Tables 2-14 and 2-15.
8. Update the analysis in Sections 2.5.3.1.2 through 2.5.3.1.4. The calculations contain typographical errors and do not include the optional Lifting Bar for the AOS-050. The results of the calculations do not change significantly.
9. Replace Figures 3-18 through 3-20. The current figures are incorrect.
10. Update Table 1-5, Certification Drawing List. Eight drawings are being revised as follows.

AOS-025:

105E9722 Rev I is now Rev J
166D8142 Rev J is now Rev K
166D8143 Rev I is now Rev J

AOS-050:

105E9718 Rev J is now Rev K
166D8137 Rev I is now Rev J

AOS-100:

105E9711 Rev K is now Rev L
105E9712 Rev L is now Rev M
105E9719 Rev L is now Rev M

Attached for your review are the revised SAR FM9054 and complete set of Certification Drawings.

Best Regards.



Troy Hedger, President
Alpha-Omega Services, Inc.

Attachments:

SAR AOS-FM9054 Rev J (10 Sections)
List of Changes to SAR AOS-FM9054 Rev. J (12 pages)
Certification Drawings (14 drawings)
List of Changes to Certification Drawings (14 pages)
AOS Affidavit for withholding from public records (re: certification drawings)