

**From:** [Troy Hedger](#)  
**To:** [Hoc, HOO X](#)  
**Cc:** [wattsconsulting@verizon.net](mailto:wattsconsulting@verizon.net); [Carl Tunnel](#)  
**Subject:** [External\_Sender] AOS Potential 10CFR Part 21 Failure to Comply Notification (Certificate 9316 rev 12)  
**Date:** Monday, March 18, 2024 1:52:42 PM  
**Attachments:** [AOS Report of Potential 10CFR Part 21 Failure to Comply Report \(031824\).pdf](#)

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Operation Center:

Per 10CFR Part 21; please find attached our notice of a potential non-compliance.

If you have any question please do not hesitate to contact me on my mobile number: +1 909-908-0899.

Kind regards,  
Troy



Troy Hedger  
CEO, President,  
Alpha-Omega Services, Inc.

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Alpha-Omega Services, Inc.

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NRC Operations Center  
Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Notification by facsimile at (301) 816-5151**

**Call for verification of receipt of facsimile by telephone (301) 816-5100**

Subject: Regulatory Requirement 10CFR Part 21 – Report of Potential 10CFR Part 21  
Failure to Comply

AOS SAR Document No. FM9054 Revision J-3 (07-19-2023)

Docket No. 71-9136; Certificate Number 9316 Rev. 12 (11-21-2023)

Pursuant to 10CFR 21.21 (d)(3)(ii) Alpha-Omega Services, Inc. is proving the USNRC with written notification of the identification of a potential failure to comply.

Details regarding the notification for failure to comply are attached to the letter.

If you or your staff have any questions, require additional information, or wish to discuss this matter further, please feel free to contact me.

Sincerely,

Alpha-Omega Services, Inc.

A handwritten signature in black ink, appearing to read "T. Hedger", written over a horizontal line.

Troy Hedger, President

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The following information is required per 10CFR 21.21 (d)(4):

- (i) *Name and Address of the individual or individuals informing the Commission.*

Troy Hedger, President  
Alpha-Omega Services, Inc.  
9156 Rose Street  
Bellflower, CA 90706

- (ii) *Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.*

AOS Document Number FM9054, *Radioactive Material Transport Packaging System Safety Analysis Report for Model AOS-025, AOS-050, and AOS-100 Transport Packages (Revision J-3, 07-19-2023; Docket No. 71-9136)*

Model AOS-100A Package, USA/9316/B(U)-96 (Certificate of Compliance #9316)

- (iii) *Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.*

The basic component is supplied by Alpha-Omega Services, Inc. 9156 Rose Street  
Bellflower, CA 90706

- (iv) *Nature of the defect of failure to comply and the safety hazard which is created or could be created by such defect of failure to comply.*

A shipment was conducted by AOS using Packaging S/N AOS-100A-0003, a Special Form Shipment was completed using a Metallic Seal (AOS Lot No. N001676, S/N 029) in lieu of an Elastomeric Seal (due to an issue with its use). Per AOS Management, Service Personnel were instructed to perform the [SAR FM9054, Section 7.0, Test A2] Gas Pressure Drop: For Special Form Contents (Tests: Cask Lid(s), Vent and Drain Ports).

Note: The Cask Vent and Drain Ports were not opened during the project, therefore, a Periodic Leak Test was not required. The Periodic Leak Test conducted within the past 12-month period was conducted June 20, 2023.

The Pressure Drop Test was performed and determined to meet the specified requirements of Test A2; and the shipment was made to its final destination without incident.

Reference: AOS Document No. FM9054 Rev. J-3 (07-19-2023), Radioactive Material Transport Packaging System Safety Analysis Report for Model AOS-025, AOS-050, and AOS-100 Transport Packages:

- a. Section 7.1.3.3 specifies that a Tracer Gas Test (Test B) must be performed when a Metallic Lid Seal is used. Contrary to this, a Gas Pressure Drop (Test A2) was used for the pre-shipment test.

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- b. Further, Section 8.2 states that for *shipments of Special Form material, a Periodic Leak Test is not necessary after replacement of an elastomeric cask lid seal, provided that a Periodic Leak Test has been performed on the cask's containment system within the past 12 months*. However, since a metallic seal was used, this exception does not apply.
- c. USNRC CoC 9316 Revision 12 Condition No. 6(a) requires that the package must be prepared for shipment and operated in accordance with the Operating Procedures of Chapter 7 of the SAR; and Condition 6(b) requires that each packaging must meet the Acceptance Tests and Maintenance Program of Chapter No. 8.

Discussion with AOS Management determines that at the time of the project, there was difficulty with the assembly of the Lid Seal, Option (Special Form Contents Only) - Certification Drawing No. 105E9712 Rev. N Item 34, Elastomeric Seals with the two (2) stainless steel Type 304L inner and outer metal rings.

After consultation between Service Personnel and AOS Management, it was justified to use a Metallic Seal (Lot No. N001676 S/N 029) in lieu of the elastomeric seals for the **Special Form** shipment.

AOS Management instructed the Service Personnel to proceed with installation of the metallic seal with the Cask Lid assembly, and assembly of the Lid to the Cask; and to perform the [SAR FM9054] Test A2 – Gas Pressure Drop For Special Form Contents for the Lid Seal only – as the Vent and Drain Ports had not been opened since the last Periodic Test completed (June 22, 2023).

Management did not consult the SAR or procedural requirements before making the determination. The decision was made based on knowledge of the SAR requirements “When the radioactive contents are encapsulated in **Special Form** sources, containment is provided by the sealed source”; and “Tests A1 and A2 are minimum requirements for shipments that contain **Special Form** contents”.

Management deemed that Test A2 was acceptable for the special form shipment, as provided above. The purpose of the test is to determine acceptability of the seal between the Cask Lid and the Cask prior to shipment.

The Cask complies with Periodic Leak Testing requirements required by FM9054 Section 8.8.2 (b); this requirement was completed during the annual maintenance and certification of SN AOS-100A-0003 with an expiration date of September 15, 2024.

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(v) *The date on which the information of such defect or failure to comply was obtained.*

February 16, 2024; Package Serial No. AOS-100A-0003.

(vi) *In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.*

The failure to comply is an isolated incident affecting one (1) AOS-100A package which is certified and is currently in service. The remaining units are not in service at this time.

The following is the storage location of the active unit:

<u>Customer</u>	<u>Location</u>	<u>Package Serial Number</u>
AOS	LTS Merritt Island, FL (Storage location)	AOS-100A-0003

(vii) *The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.*

Based on our initial evaluation, AOS has initiated CAPA No. FM9016.1-032024-002 to provide corrective action relating to the above-identified subject.

A 10CFR Part 21 Applicability Form (re. FM9015.2-032024-001) has also been prepared and is currently under evaluation.

The CAPA identifies the issue and begins the internal investigation process to determine the cause and to identify corrective action(s); this investigation is currently in progress.

(viii) *Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.*

This issue is an isolated event and does not affect any purchasers or licensees.

(ix) *In the case of an early site permit, the entities to whom and early site permit was transferred.*

Not applicable