



February 1, 2012

U.S. Nuclear Regulatory Commission
Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Ref: Docket# 71-9316 TAC No. L24353

Alpha-Omega Services, Inc. (AOS) hereby submits the following:

1. Hard copies consisting of one each of the following: SAR rev F, Certificate Drawings and a Draft Certificate of Compliance and a letter sent to Mr. Saverot.

AOS considers the drawings to be proprietary and request that the drawings be withheld from the Public Document Room. We have also attached an affidavit for withholding this information as required by 10 CFR 2.390.

A digital copy of the SAR rev F, Certificate Drawings, Draft Certificate of Compliance, the affidavit and copy of this letter will be sent to Mr. Saverot.

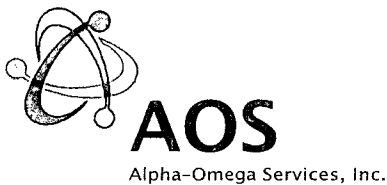
Please contact us if you need additional information or have comments regarding this submittal.

Sincerely,

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

Troy Hedger, CEO
Alpha-Omega Services, Inc.

N145501



COPY

February 1, 2012

U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Division of Spent Fuel Storage and Transportation
Mail Stop EBB-3D-02M, Pierre Saverot, Project Manager
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Ref: Docket# 71-9316 TAC No. L24353

Dear Mr. Saverot:

Alpha-Omega Services, Inc. (AOS) hereby submits the following:

1. Two (2) USB Flash Drives consisting of a digital copy of the SAR rev F, Certificate Drawings and a Draft Certificate of Compliance.

AOS considers the drawings to be proprietary and request that the drawings be withheld from the Public Document Room. We have also attached an affidavit for withholding this information as required by 10 CFR 2.390.

A hard copy of the SAR rev F, Certificate Drawings, Draft Certificate of Compliance, the affidavit and this letter will be sent directly to the US Nuclear Regulatory Commission Attn: Document Control Desk.

Please contact us if you need additional information or have comments regarding this submittal.

Sincerely,

Troy Hedger, CEO
Alpha-Omega Services, Inc.



Alpha-Omega Services, Inc.

Alpha-Omega Services, Inc.
Supplementary Affidavit

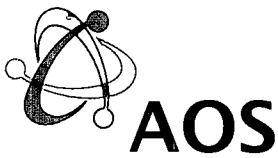
February 1, 2012

I, Troy Hedger, being duly sworn, depose and state as follows:

1. I am the CEO of Alpha-Omega Services, Inc. and have been delegated the function of reviewing the information described in paragraph 2, which is sought to be withheld, and have been authorized to apply for its withholding.
2. The information sought to be withheld consists of:
 - a. Alpha-Omega Services, Inc.'s drawing numbers: 105E9722, 166D8143, 166D8137, 166D8138, 105E9712, 105E9713 and 105E9719;
3. In designating material as proprietary, Alpha-Omega Services, Inc. utilizes the definition of proprietary information and trade secrets set forth in the American Law Institute's Restatement of Torts, Section 757. This definition provides:

"A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business and which gives him an opportunity to obtain an advantage over competitors who do not know or use it...A substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring information...Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by his employees and others involved in this business; (3) the extent of measures taken by him to guard the secrecy of the Information; (4) the value of the information to him and his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others."

4. Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses an apparatus where prevention of its use by Alpha-Omega Services' competitors without license from Alpha-Omega Services constitutes a competitive economic advantage over other companies;
 - b. Information which, if used by a competitor, would reduce his expenditure on resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality or licensing of a similar product;
 - c. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection;
5. Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within the



Alpha-Omega Services, Inc.

- company is limited on a “need to know” basis, and such documents at all times are clearly identified as proprietary.
6. The procedure for approval of external release of such a document is reviewed by higher level management, Project Manager, or other equivalent authority for technical content, competitive effect and determination of the accuracy of the proprietary designation in accordance with the standards enumerated above. Disclosures outside of Alpha-Omega Services, Inc. are generally limited to regulatory bodies, customers and potential customers and their agents, suppliers and licensees only in accordance with appropriate regulatory provisions or proprietary agreements.
 7. The documentation mentioned in paragraph 2 above has been evaluated in accordance with the above criteria and procedures and has been found to contain information which is proprietary and which customarily held in confidence by Alpha-Omega Services, Inc.
 8. The information mentioned in paragraph 2 provides information in support of the licensing of the AOS Transport Packaging System.
 9. The information to the best of my knowledge and belief has consistently been held in confidence by Alpha-Omega Services, Inc., no public disclosure has been made, and it is not available in public sources. All disclosures to third parties have been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.
 10. Public disclosure of information sought to be withheld is likely to cause substantial harm to the competitive position of Alpha-Omega Services, Inc. and deprive or reduce the availability of profit-making opportunities because:
 - a. It was developed with the expenditure of resources exceeding \$4,000,000.
 - b. Public availability of this information would deprive Alpha-Omega Services, Inc. of the ability to seek reimbursement and would permit competitors to utilize this information to Alpha-Omega Services, Inc.’s detriment.
 - c. Public availability of the information would allow competitors to obtain information at no cost which Alpha-Omega Services, Inc. developed at substantial cost. Use of this information by competitors would give them a competitive advantage over Alpha-Omega Services, Inc. by allowing competitors to design Type B packages at lower cost than Alpha-Omega Services, Inc.

The above initial evidential justification requesting that the information contained in the proprietary document be withheld from public disclosure is further supplemented by the additional following information.

Drawings 105E9722, 166D8143, 166D8137, 166D8138, 105E9712, 105E9713, and 105E9719 contain sufficiently detailed information to permit a competitor to copy the AOS Transport Packaging System design. For example, drawing 105E9722, 166D8143, 166D8137, 166D8138, 105E9712, 105E9713 and 105E9719 contain construction details for the package cask and impact limiters.

Alpha-Omega Services, Inc. feels that the information sought to be withheld is truly proprietary in nature. Public disclosure of this information, sought to be withheld, would permit Alpha-Omega Services, Inc.’s competitors in need of similar Type B packaging to construct such packaging without incurring significant development cost. This would place Alpha-Omega Services, Inc. at a competitive disadvantage in making these Type B containers available to the industry.



Alpha-Omega Services, Inc.

State of California)ss:
County of Los Angeles)

Troy Hedger, being duly sworn, deposes and says:

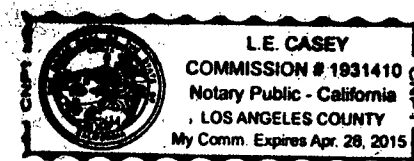
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information and belief.

Executed at Bellflower, California, this 1st day of February 2012

Troy Hedger
Alpha-Omega Services, Inc.

Subscribed and sworn before me this 1st day of February 2012

Notary Public, State of California



5.

(a) Packaging: AOS Transport Packaging System

(1) Model Nos.: AOS-025A, AOS-050A, AOS-100A, AOS-100B, and AOS-100A-S.

(2) Description

AOS package models consist of three (3) main components – cask, impact limiter, and cask lid seal. The seal is bolted to the cask lid, which in turn attaches to the cask body by a series of lid bolts. Aided by this seal, the cask provides containment to the radioactive material content. The cask is enclosed by the impact limiter structure located at each end. The impact limiters attach to one another by eight (8) mechanical connectors, covering each end of the cask. The cask component is constructed of 300 series stainless steel (SS300) material. To enhance the cask assembly's shielding capability, tungsten alloy or carbon steel material is embedded within the cask body and lid plug cask components. The impact limiter components mitigate mechanical and thermo loads generated during Normal and Hypothetical Accident conditions of transport. They are made of SS300 thin shell, filled with polyurethane foam. All transport package models use a metallic, double "C" cross-section seal within the lid joint.

The cask is a cylindrical structure with a cavity to contain its payload. The cask structure is comprised of outer shell, cavity cylinder, shielding cylinder, shielding plugs, cask bottom plate, lid, and lid plug. The outer shell and cavity cylinder interlock to encase the shielding cylinder, which is a component made of tungsten alloy or carbon steel. A weldment attaches the upper portion of the cavity cylinder, with its lower portion encasing the shielding cylinder. The function of the shielding cylinder and plugs is to enhance the cask shielding characteristics. To provide shielding in the open end of the cavity, axial direction, the "Lid Plug" component is used. At the cavity's closed end, the shielding plug is encased between the cavity bottom wall and cask bottom plate. The shielding plug encased on the lid plug is of the same size and material (tungsten alloy or carbon steel) as the one encased at the bottom of the cask. The lid consists of a flat disk, with recessed areas concentric with the bolt holes on the top surface. This is to protect the bolts from impact loads. The groove on the bottom surface of the lid houses the seal, as well as a central recess to accommodate the lid plug component. Additional cask assembly components are lid bolts and port plugs with their threaded pipe plugs, O-ring seals, port plug covers, and a pair of trunnions with their attachment bolts.

The impact limiter consists of a thin-walled cylindrical shell, with a dish head at one end and a flat-disk plate at the other end. At the flat-disk plate end, there is a cylindrical recess with an internal profile identical to that of the cask end profile. This cavity accommodates the cask in the transport configuration. Twelve (12) squared ribs are attached to the inner wall of the cylindrical recess section. Eight (8) of these ribs extend beyond the flat-disk plate, to be used as turnbuckle attachment points. At the dish-head end, there is another recess, created to reduce the area available for impact during a head-on drop event. The impact limiter shell is filled with rigid, closed-cell, polyurethane foam material.

Model	Category	Dimensions, Basic (cm / in.)						Maximum Authorized Package Weight (kg / lbs.)
		Packaging		Cask		Cavity		
		Width	Height	OD	Height	OD	Height	
AOS-025A	I	45.72	50.30	17.78	22.86	4.12	12.70	100
		18.00	21.38	7.00	9.00	1.62	5.00	220
AOS-050A	I	100.97	105.10	35.56	45.72	8.26	25.40	681
		39.75	41.38	14.00	18.00	3.25	10.00	1,500
AOS-100A	I	155.14	179.63	71.12	91.44	16.51	50.80	5,675
		61.08	70.72	28.00	36.00	6.50	20.00	12,500
AOS-100B	II	155.14	179.63	71.12	91.44	16.51	50.80	4,994
		61.08	70.72	28.00	36.00	6.50	20.00	11,000
AOS-100A-S	I	155.14	179.63	71.12	91.44	16.51	50.80	5,675
		61.08	70.72	28.00	36.00	6.50	20.00	12,500

(3) Drawings

- (i) The AOS Transport Packaging System components must meet the requirements identified in the following drawings:

Model	Assembly	Rev.	Impact Limiter	Rev.	Cask ^a	Rev.	Liner/Axial Shielding Plates	Rev.
AOS-025A	166D8142	F	105E9722	E	166D8143	E	183C8485	E
AOS-050A	105E9718	F	166D8138	E	166D8137	E	–	–
AOS-100A	105E9711	F	105E9713	E	105E9712G001	E	183C8491	E
AOS-100B	105E9711	F	105E9713	E	105E9712G002	E	183C8491	E
AOS-100A-S	105E9711	F	105E9713	E	105E9719	E	183C8491	E

a. The G00x number appended to select drawing numbers represents a group within the drawing.

(b) Contents

(1) Type and form of material

- (i) All models – Activation product radioactive materials in *Normal* and *Special form*. *Special form* materials require a current certificate of compliance. *Dispersible Normal form materials are required to be enclosed within an inner container. The inner container is considered to be a "shoring device."*

(2) Maximum quantity of material per package

- (i) For the contents described in 5(b)(1)(i):

In Model AOS-025A, 10 watts of decay heat; Model AOS-050A, 100 watts of decay heat; and Model AOS-100A, AOS-100B, and AOS-100A-S, 400 watts of decay heat.

- (3) Any materials with a melting point less than 538°C (1,000°F) are required to be in *Special form*.

- (4) *All shoring materials within the cask cavity shall have a melting point greater than 538°C (1,000°F).*

6. Bolt Torque:

Torque value (in ft-lb.) for the lid bolt and impact limiter mechanical connectors must be as follows:

Model	Lid Bolt (ft-lb, lubricated)	Impact Limiter (ft-lb, lubricated)
AOS-025A	35	10
AOS-050A	62.5	3
AOS-100A	500	70
AOS-100B		
AOS-100A-S		

7. Prior to each shipment (except for contents meeting the requirements of *Special form* radioactive material), the package must be leak-tested to 1×10^{-3} std atm cm^3/sec . Prior to the first use, after the third use, and at least once within the 12-month period prior to each subsequent use, the package must be leak-tested to 1×10^{-7} std atm cm^3/sec .
8. The cask must be vacuum-dried, prior to shipment, if contents are loaded under water, or if water is introduced into the cask cavity. During shipments for which vacuum drying is performed, the cask cavity must be filled with helium.
9. In addition to the requirements of 10CFR Part 71, Subpart G:
- (a) The cask sealing surfaces must be inspected and seal replaced prior to each shipment.
 - (b) Each package must meet the Acceptance Tests and Maintenance Program of Chapter 8 of the SAR; however, inspections in Section 8.2 of the SAR must be performed at least once within the 12-month period prior to each use; and
 - (c) The package must be prepared for shipment and operated in accordance with the Package Operations of Chapter 7 of the SAR.
10. Appropriate carrier racks, or shoring, must be provided to minimize movement of contents during transport. All shoring material within the cask cavity must have a melting point greater than 538°C ($1,000^\circ\text{F}$).