



## Department of Energy

Washington, DC 20585

January 13, 2026

Mr. Aleksandr Gelfond  
Director of Engineering/Licensing  
EnergySolutions  
740 Osborn Road  
Barnwell, SC 29812

Dear Aleksandr Gelfond:

In response to your request October 9, 2025, to Christopher Cable of my staff, enclosed is Department of Energy (DOE) Certificate of Compliance (CoC) Number 9204, Revision 13, and its Safety Evaluation Report, for the Model 10-160B, issued for renewal. The changes from Revision 12 to 13 are not indicated by vertical bars in the right-hand page margin, since for this five-year renewal of the CoC extensive formatting and content changes were made to streamline and remove excessive detail for consistency with recently issued certificates.

This CoC is issued by DOE under the authority of 49 CFR Part 173.7(d) and is conditional upon the user fulfilling the applicable Operational and Quality requirements of 49 CFR parts 100-199 and 10 CFR Part 71, and the conditions specified in Item 5 of the CoC.

The expiration date of Revision 13 is December 31, 2030.

If you have any questions, please contact me or Lawrence Gelder at 803-645-3430 or [lawrence.gelder@em.doe.gov](mailto:lawrence.gelder@em.doe.gov).

Sincerely,

JULIA  
SHENK

Digitally signed by JULIA  
SHENK  
Date: 2026.01.13  
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Julia C. Shenk  
Headquarters Certifying Official  
Director  
Office of Packaging and Transportation

Enclosure

cc: Christopher Cable, EM-4.24  
Docket 26-02-9204



U.S. DEPARTMENT OF  
**ENERGY**

DOE Packaging Certification Program

**CERTIFICATE OF COMPLIANCE  
For Radioactive Materials Package**

DOE F 5822.1  
(5-85 Formerly EV-618)

1a. Certificate Number	1b. Revision No.	1c. Package Identification No.	1d. Page No.	1e. Total No. Pages
9204	13	USA/9204/B(U)F-96 (DOE)	1	8

2. PREAMBLE

- 2a. This certificate is issued under the authority of 49 CFR Part 173.7(d).
- 2b. The packaging and contents described in Item 5 below meet the safety standards set forth in subpart E, "Package Approval Standards" and subpart F, "Package, Special Form and LSA-III Tests" Title 10, Code of Federal Regulations, Part 71.
- 2c. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. This certificate is issued on the basis of a safety analysis report of the package design or application —		
(1) Prepared by (Name and Address):	(2) Title and identification of report or application:	(3) Date:
Energy Solutions 740 Osborn Road Barnwell, SC 29812	Consolidated Safety Analysis Report for Model 10-160B Type B RADWASTE Shipping Cask, Energy Solutions Revision 3, as supplemented [See 5(e)]	January 2011

4. CONDITIONS

This certificate is conditional upon fulfilling of the applicable Operational and Quality Assurance requirements of 49CFR parts 100 – 199 and 10CFR Part 71, and the conditions specified in Item 5 below.

5. Description of Packaging and Authorized Contents, Model Number, Transport Index, other Conditions, and References:

(a) Packaging

(1) Model Number: 10-160B

(2) Description:

A cylindrical carbon steel and lead shielded shipping cask, designed to transport radioactive waste material. The cask is transported in the upright position and is equipped with steel encased, rigid polyurethane foam impact limiters on the top and bottom. The package has approximate dimensions, shielding, and weight as follows:

Cask height	88 in.
Cask outer diameter	78-1/2 in.
Cask cavity height	77 in.
Cask cavity diameter	68 in.
Overall package height, with impact limiters	130 in.
Overall package diameter, with impact limiters	102 in.
Lead shielding thickness	1-7/8 in.
Gross weight (packaging and contents)	72,000 lb.
Maximum total weight of contents, shoring, secondary containers, and optional shield insert	14,250 lb.

6a. Date of Issuance: January 12, 2026

6b. Expiration Date: December 31, 2030

FOR THE U.S. DEPARTMENT OF ENERGY

7a. Address (of DOE Issuing Office)

U.S. Department of Energy  
Office of Packaging and Transportation (EM-4.24)  
1000 Independence Avenue, SW  
Washington, DC 20585

7b. Signature, Name, and Title (of DOE Approving Official)

JULIA  
SHENK  
Julia C. Shenk  
Headquarters Certifying Official  
Director  
Office of Packaging and Transportation

Digitally signed by JULIA  
SHENK  
Date: 2026.01.13  
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The cask body consists of a 1- $\frac{1}{8}$ -in.-thick carbon-steel inner shell, a 1- $\frac{7}{8}$ -in.-thick lead gamma shield and a 2-in.-thick carbon-steel outer shell. The inner and outer shells are welded to a 5- $\frac{1}{2}$ -in.-thick carbon-steel bottom plate. The cask cavity has an optional 11-gage stainless-steel liner. A 12-gage stainless-steel thermal shield surrounds the cask outer shell in the region between the impact limiters. The impact limiters are secured to each other around the cask by eight ratchet binders.

The cask lid is a 5- $\frac{1}{2}$  in.-thick carbon-steel plate and has a 31-in. diameter opening equipped with a secondary lid. The primary lid is sealed with a double-elastomer O-ring and 24 equally spaced 1- $\frac{3}{4}$  in.-diameter bolts. The secondary lid is 46 in. in diameter, is centered within the primary lid, and is sealed to the primary lid by a double-elastomer O-ring and 12 equally spaced 1- $\frac{3}{4}$  in.-diameter bolts. The space between the double-O-ring seals is provided with a test port for leak testing the primary and secondary lid seals.

The secondary lid is protected by a thermal shield which consists of two polished-stainless-steel plates separated by a thin air gap. The thermal shield is attached to the secondary-lid-lifting-lugs with hitch-pins. The optional cask drain and vent ports are sealed with a plug and an O-ring seal.

The package is equipped with four tie-down lugs welded to the cask outer shell. Two lifting-lugs and two redundant lifting-lugs are removed during transport. The lid is equipped with three lifting-lugs which are covered by the top impact limiter and rain cover during transport.

For contents as specified in 5(b)(1)(i) through (v) of this certificate, an optional carbon-steel shield insert (Drawing C-119-B-0018), maximum outer diameter of 67-in., approximately 75-in. tall, and  $\frac{1}{2}$ -in. to 1- $\frac{1}{2}$ -in. thick may be used within the cask cavity. The insert weight ranged from a min. 2,750 lb. to max. 6,700 lb.

Contents specified in 5(b)(1)(vi) of this certificate must be packaged in the Argonne National Laboratory (ANL) Source Container Assembly, Drawing C-038-349097-001, prior to loading in the cask. The max. weight of the assembly is 12,000 lb. and is loaded in the cask with shoring per Drawing C-038-349097-005. This assembly consists of an inner and outer container, each with bolted-lid closures. The inner container is steel-encased lead for photon/gamma radiation shielding, with lead thicknesses of 5-in. (bottom), 6-in. (side), and 8- $\frac{7}{8}$ -in. (top/lid). The contents are loaded in the inner container, which has a usable cavity of approximately 8-in. in diameter by 27-in. tall. The outer container is steel-encased poly for neutron radiation shielding, with a 3-in.-thick layer of poly (boron-silicone) in the top, side, and bottom of the container. The usable cavity of the outer container is approximately 25-in. in diameter by 43- $\frac{5}{8}$ -in tall, for housing the inner container. The cavities of both source containers are vented through the container sidewall and the vents through the outer container are terminated with HEPA filter.

Contents specified in 5(b)(1)(vii) of this certificate must be packaged in the Source Insert Assembly, Drawing C-038-145083-004, prior to loading in the cask. The max. weight of the source insert is 8,000 lb. and is loaded in the cask with steel or wooden cribbing per Drawings C-038-145083-005 or DWG-4132-ST-0005, respectively. The Source Insert Assembly is steel-encased lead for photon/gamma radiation shielding, with approximate lead thicknesses of 6-in. (bottom), 6- $\frac{3}{4}$ -in. (side) and 8- $\frac{7}{8}$ -in. (top/lid), with a bolted-lid closure. The usable cavity of the insert is approximately 8-in. in diameter by 27-in. tall. The cavity is vented through the container sidewall.

Contents specified in 5(b)(1)(viii) of this certificate are packaged in the Los Alamos National Laboratory (LANL) Corrugated Metal Box (CMB) and loaded in the cask with wooden cribbing per Drawing DWG-5063-ME-0100-01. The CMB is a steel, filter-vented, Department of Transportation (DOT) Specification 7A, Type A container with overall dimensions approximately 68-in. length, 54-in. width, and 38- $\frac{1}{2}$ -in. height, with a welded-lid closure. The authorized gross weight of the CMB 6,000 lb. The estimated weight of the cribbing design is 4,800 lb.

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Contents specified in 5(b)(1)(ix) of this certificate are modified Gammacell (GC) Irradiators - Model 200, Model 200 with extra shielding band, and Model 220, which were previously DOT certified Type B packages. Prior to loading in the cask, each GC must be modified per Drawings DWG-4132-ST-0001-01 through -03 and DWG-4132-ST-0003-01 & -02, for one-time-use as a source insert for direct disposal. Each modified GC is loaded in the cask (one-GC-per-cask) with the wooden cribbing assembly per Drawings DWG-4132-ST-0002-01 through -04. Each GC is cylindrical in shape and consists of steel-encased lead welded to a support-frame/skid, with a bolted-lid closure. The skid is 32-in. square by 4-in. tall. The overall height of a GC (with skid) is approximately 34-in. The estimated weight of the cribbing design is 1,350 lb.

- The GC 200 is 25-¾-in. in diameter with approximately 9-in. of shielding thickness and weighs approximately 5,203 lb.
- The GC 200 with extra shielding band is 28-in. in diameter with an additional 1-in.-thick band of lead added to the sidewall and weighs approximately 6,118 lb.
- The GC 220 is 30-in. in diameter with approximately 14-in. of shielding thickness and weighs approximately 7,705 lb.
- The usable cavity in the GC 200 and GC 200 with extra shielding band is 7-in in diameter by 6.2-in. tall, and 8.75-in. in diameter by 8.5-in tall for the GC 220.
- The GC 200 and GC 200 with extra shielding band, the "bucket" configuration is used only for Cs-137 sources, and the "spacer and tungsten plate" is used for all other source combinations (Ref DWG-4132-ST-0004-01)
- For the GC 220, a "large spacer" and "bucket" configuration is used for any combination of sources, and a "small spacer", "carousel", and "bucket" are used for Co-60 pencil sources in the "carousel" and any combination of sources in the "bucket" (Ref DWG-4132-ST-0003-01 and DWG-4132-ST-0003-02).

Contents specified in 5(b)(1)(x) of this certificate must be packaged in the previously authorized DOT Specification 20WC-5 Type B Packaging (phased out in 2008) and loaded in the cask with the wooden cribbing assembly per Drawings DWG-4182-ST-0001-01 through -05. The maximum weight of the 20WC-5, with contents and cribbing, is 4,869 lb. The 20WC-5 is a wooden-drum overpack consisting of a drum-shell assembly, drum-lid assembly, and insert-cradle assembly, per Drawing INIS-DWG-0051. The 20WC-5 outer dimensions are 39-½ in. in diameter and 51-<sup>5</sup>/<sub>16</sub> in. tall. The drum-lid assembly is secured to the drum-shell with sixteen (16), ½-in.-13 UNC-2B hex nuts. The 20WC-5 internal packaging required for these contents consists of a tungsten shield assembly, per Drawing INIS-DWG-0007, and 2R-1 transport container assembly, per Drawing INIS-DWG-0019. The shield assembly, with contents, is loaded in single 2R-1 assembly, and then placed in the 20WC-5 insert-cradle assembly. The usable dimensions of the shield assembly are 2-in. in diameter and 17-3/4-in. tall, or 1-in. in diameter with tungsten sleeves added for extra shielding. The shield assembly weighs approximately 1,800 lb. (with sleeves), provides approximately 5-<sup>3</sup>/<sub>8</sub>-in. of shielding, and has a bolted closure. The 2R-1 assembly has usable dimensions of 12-in. in diameter by 33-15/16-in tall and a threaded closure. Prior to loading in the shielding assembly, Co-60 is loaded in convenience/handling assemblies. A single Co-60 target is loaded in a capsule canister assembly, per Drawing DMP-CICC-100. For Co-60 sources, the sources are loaded in a capsule assembly per Drawing INIS-DWG-0049.

Contents specified in 5(b)(1)(xi) of this certificate are housed in the self-shielded Model IBL-437C Irradiator and loaded in the cask with wooden cribbing assembly per Drawing DWG-5164319-ST-0001. The overall dimensions of the Irradiator are approximately (length, width, & height) 23.6-in. x 23.3-in. x 42.1-in. and it weighs 4,519 lb. The overall dimensions of the cribbing assembly, with Irradiator, are 66-in. diameter x 78-in. in height and estimated weight, without Irradiator, is 1,615 lb. The configuration weighs approximately 6,191 lb., with an addition 58 lb. of nylon slings rigged to the Irradiator and cribbing for ease of removal.

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(3) Drawings:

Drawing No.	Revision	Sheets	Title
C-110-D-29003-010	16	5	Cask Assembly – General Notes/Parts List 10-160B
DWG-CSK-12CV01-EG-0002-01	3	1	10-160B Secondary Lid Thermal – Shield Details
C-119-B-0018	2	1	10-160B Shield Insert
C-038-145083-004	0	2	Source Insert Assembly Details
C-038-145083-005	0	4	Source Insert Steel Cribbing
DWG-4132-ST-0005-01 through - 05	1	7	Transport of Source Insert in 10-160B Cask – Assembly & Details
DWG-4132-ST-0005-06 through - 07	0		
C-038-349097-001	1	3	ANL Source Container Assembly and Details
C-038-349097-005	0	1	ANL Shielded Source Container Shoring
DWG-5063-ME-0100-01	2	1	Transport of LANL Corrugated Metal Boxes in the 10-160B Cask – Cribbing General Arrangement
DWG-4132-ST-0001-01 through - 03	1	3	Summary of Field Measurements Modifications and Weld Details for Gammacell 200 & 220
DWG-4132-ST-0002-01 through - 04	1	4	Transport of SWRI Gammacells 200, 200 (Extra Shielding Band) & 220 in 10-160B Cask - Cribbing Assembly & Details
DWG-4132-ST-0003-01 & -02	1	2	Transport of SWRI Gammacells 200, 200 (Extra Shielding Band) & 220 in 10-160B Cask - 220 Dtls of Inner Buckets/Spacers
DWG-4132-ST-0004-01	1	1	Transport of SWRI Gammacells 200, 200 (Extra Shielding Band) & 220 in 10-160B Cask 200 Dtls of Inner Buckets/
INIS-DWG-0051	B	7	INIS-2/20WC-5 Overpack Drum and Assembly and Details OD 39.5 x51 H
DWG-4182-ST-0001-01 through - 05	2	5	Transport of 20WC-5 Shield Insert in 10 160B Cask Cribbing Assembly and Details
INIS-DWG-0007	C	10	INIS-2 Tungsten Shield Assembly and Details
INIS-DWG-0019	A	2	INIS-2R-1 Transport Container Assembly and Details
DMP-CICC-100	0	1	Cobalt Irradiation Capsule Canister Assembly
INIS-DWG-0049	B	4	INIS-SF01.6-13-I Cobalt 60 Calibration Capsule Assembly
DWG-5164319-ST-0001	0	8	Transport of IBL-437C Irradiator in 10-160B Cask Cribbing Assembly & Details

(b) Contents:

(1) Type and form of material

- (i) Byproduct, source, and special nuclear material, non-fissile or fissile-excepted, as special form, or non-special form in the form of solids, dewatered resins or process solids, or solidified waste, in secondary containers; or
- (ii) Dewatered, solid or solidified transuranic-containing wastes (TRU), fissile or non fissile or fissile-excepted, in secondary containers; or

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- (iii) Plutonium 239 (Pu-239) as PuBe neutron sources meeting the requirements of special form sources; or
  - (iv) Neutron activated metals or metal oxides in solid form in secondary containers; or
  - (v) Miscellaneous radioactive solid waste materials, including special form materials and powered solids, in secondary containers; or
  - (vi) For a shipment of the ANL Source Container specified in Drawing C038-349097-001, and disposal of the Container, byproduct material as dry normal form solids. The Co-60 sources are activated cobalt metal enclosed in stainless steel and/or aluminum. The radium-beryllium sources typically are RaBr<sub>2</sub> mixed with Be metal powder in a brass capsule that is sealed with soft solder. Other sources may include RaBr<sub>2</sub>, RaCl<sub>2</sub>, or RaSO<sub>4</sub> in stainless steel, brass, monel, or nickel tubes that were sealed by welding, brazing, or soft soldering or in flamesealed glass vials. These radium sources may be with or without Be; or
  - (vii) Byproduct material as Co-60 loaded into the source insert; or
  - (viii) Solid TRU waste defined as Material Form No. 1 (solids – any particle size), Material Form No. 2 (solids – large particle size only, e.g., sand, debris, concrete, etc.), and Material Form No. 3 (solids – objects with no significant dispersible or removable contamination as defined by 49 CFR 173.433). This CoC authorizes these three waste forms in the LANL CMB; or
  - (ix) For shipment of a GC, normal form, undamaged, metallic, sealed Co-60 and/or Cs-137 sources; or
  - (x) For a shipment in the 20WC-5, Co-60 pellets, solid metal, or nickel alloy (plated); or
  - (xi) For shipment in the Model IBL-437C Irradiator, Cs-137 in special form capsules.
- (2) Maximum quantity of material per package
- (i) Maximum contents are limited to 0.495 TBq (13.4 Ci) of Co-60; 370 TBq. (10,000 Ci) of Co-60, not to exceed mass of 500 lb., contained in the Source Insert (Drawing C-038-145083-004). For contents other than Co-60, the maximum quantity of radioactive materials is determined by the methodology described in Attachment 1 to Chapter 7 of the SAR. Total quantity of radioactive material is not to exceed 3,000 A<sub>2</sub>.
  - (ii) Fissile contents must be limited to the fissile gram equivalent of 325 grams of Pu-239, as determined using the conversion factors in Table 9.1.3, in Chapter 4, Appendix 4.10.2, of the SAR, as supplemented. Plutonium content exceeding 0.74 TBq (20 Ci) must be in solid form.
  - (iii) TRU exceeding the fissile limits of 10 CFR 71.15 must not be machine-compacted and must have no more than 1% by weight of special reflectors and no more than 25% by volume of hydrogenous material.
  - (iv) Neutron sources as described in 5(b)(1)(iii) are limited to a maximum emission rate of 1.1E+8 neutrons/sec.
  - (v) Maximum decay heat not to exceed 200 watts.
  - (vi) Maximum weight of contents: 14,250 lb. including shoring, secondary containers, and optional shield insert. The maximum weight of the ANL Source Container, with contents, is 12,500 lb. The maximum weight of the LANL CMB, with contents, and cribbing is less than 9,000 lb. The maximum weight of a GC with contents and cribbing is less than 10,000 lb. The maximum weight of the 20WC-5 with contents and cribbing is less than 5,000 lb. The maximum weight of the IBL-437C Irradiator, cribbing, and slings is approximately 6,249 lb.

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- (vii) Explosives, corrosives, non-radioactive pyrophorics, and compressed gases are prohibited. Pyrophoric radionuclides may be present only in residual amounts less than 1 weight percent.
- (viii) The total amount of potentially volatile organic compounds present in the headspace of a secondary container is restricted to 500 parts per million (ppm).
- (ix) Powdered solid radioactive materials shall not include radioactive forms of combustible metal hydrides or combustible elemental metals (i.e., magnesium, titanium, sodium, potassium, lithium, zirconium, hafnium, calcium, zinc, plutonium, uranium, and thorium), or combustible non-metals (i.e., phosphorus).
- (x) Powdered solids contents with neutron emitters are not permitted.
- (xi) 4,030 Ci of Co-60 and 3.49 Ci of Ra-226 (as radium-beryllium sources) contained in an ANL Source Container specified in Drawing C-038-349097-001. Radioactive sources in the ANL Source Container shall have a maximum mass of 7.5 kg with not more than 5% by weight of organic material. The total decay shall not exceed 100 watts.
- (xii) Each LANL CMB shall contain  $\leq 20$  aerosol cans and  $\leq 4.0$  fluid oz. total residual flammable liquids in any aerosol cans to ensure that CMB contents are below the lower flammability limit and  $< 500$  ppm volatile organic compound (VOC) content.
- (xiii) Each GC 200 or 200 (with extra shielding band) Shielded Insert shall contain no more than 9,000 Ci of Co-60 only, 27,700 Ci of Cs-137 only, or combination of Co-60 and Cs-137 not to exceed 138.5 watts (i.e., thermal limit for the GC 200 and 200 with extra shielding band). Each GC 220 Shielded Insert shall contain no more than 13,000 Ci of Co-60 only, 40,000 Ci of Cs-137 only, or combination of Co-60 and Cs-137 not to exceed 200 watts (i.e., thermal limit for the GC 220).
- (xiv) Each 20WC-5 shall contain no more than 10,000 Ci of Co-60.
- (xv) Each IBL-437C Irradiator shall contain no more than 5,100 Ci of Cs-137.

(c) Criticality Safety Index: 0.0

(d) Conditions:

- (1) In addition to the requirements of Subparts G and H of 10 CFR Part 71:
  - (i) The package must be prepared for shipment and operated in accordance with the Operating Procedures of Chapter 7, except Section 7.4, of the SAR, as supplemented and
  - (ii) Each packaging must meet the Acceptance Tests and Maintenance Program of Chapter 8 of the SAR, as supplemented.
- (2) Transport by air of fissile material is not authorized.
- (3) Flammable gas (hydrogen) concentration is limited to less than 5% in volume. For contents other than TRU waste, inerting is not allowed to limit the concentration of flammable gases. For TRU waste, compliance with the 5% hydrogen concentration limit is determined by the methods discussed in Appendix 4.10.2 of the SAR as supplemented. For contents with a radioactivity concentration not exceeding that for Low Specific Activity material, the hydrogen concentration can be assumed to be less than 5% provided the package is shipped within 10 days of preparation, or within 10 days after venting of the drums or other secondary containers.

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- (4) Payload containers authorized for shipment of TRU waste are the 30-gallon and 55-gallon drums. TRU waste characteristics are determined and limited in accordance with Appendix 4.10.2 of the SAR as supplemented.
- (5) The non-homogeneity of the package contents may lead to elevated levels of radiation on the package surfaces. Radiation surveys must be performed to obtain measurements from all surfaces of the package, and from outer surfaces of the vehicle enclosure, unless process knowledge or survey history indicates that elevated radiation levels are not likely to be encountered.
- (6) Appropriate devices or measures must secure contents in the secondary container, if necessary.
- (7) The 10-160B package shall be shipped "exclusive use", per 10 CFR Part 71.
- (8) The transport limit for the ANL Source container and contents in the 10-160B package is 60 days, starting when the 10-160B lid is set in place, and conservatively accounts for hydrogen buildup within the package even when not fully sealed (lid bolts torqued, etc.)
- (9) Revision 12 of this certificate may be used until December 31, 2025.
- (10) Use of this packaging for DOE shipments of TRU waste must be conducted in accordance with standards and protocols delineated in the TRU Waste Transportation Plan (DOE/CBFO-98-3103, current revision) or an alternative agreement between DOE and affected States or Tribes.
- (11) Only DOE or persons working under contract to DOE shall consign the package for domestic transport.
- (12) NRC or Agreement State licensees shall not consign a DOE certified package for domestic transport, but can transfer the material on-site to DOE or persons working under contract to DOE, for consignment of the package.
- (13) The average surface dose rate of the IBL-437C Irradiator authorized for shipment under 5(b)(2)(xv) shall not exceed 2.5 mrem/hr. The Irradiator meeting the average surface dose rate requirement shall be prepared, loaded, and closed as specified in Reference 8 (Addendum)

(e) References:

- (1) Source Container Addendum to 10-160B, *EnergySolutions*, December 2011.
- (2) Consolidated Safety Analysis Report For Model 10-160B Type B Radwaste Shipping Cask, Revision 4, July 2012 (includes Source Insert Addendum For Model 10-160B Type B Radwaste Shipping Cask, July 2012). As amended by revised Chapter 7 submitted to NRC on July 26, 2012, and by drawing DWG-CSK-12CV01-EG-0002-01, Rev 3 "Cask Secondary Lid Thermal Shield Details submitted to NRC on August 26, 2012.
- (3) Corrugated Metal Box Inner Container Addendum for Model 10-160B Type B Radwaste Shipping Cask, dated September 2013, transmitted with Letter from C.H. Keilers to Dr. James M. Shuler, *Transmittal of Q1 Responses and Final SARP Addendum for Type B Packaging Model 10-160B for Corrugated Metal Box Content* dated September 27, 2013.
- (4) Gammacell 200, Gammacell 200 (Extra Shielding Band) and Gammacell 220 Inserts Addendum for Model 10-160B Type B Radwaste Shipping Cask, Revision 1, February 28, 2014.
- (5) Source Insert Addendum for Model 10-160B Type B Radwaste Shipping Cask, Revision 2, May 22, 2014.
- (6) Renewal of 10-160B Type B Radwaste Shipping Cask Certificate of Compliance (CoC), *EnergySolutions* letter to James M. Shuler, September 12, 2014.



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- (7) 20WC-5 Shield Insert Shipping Addendum for Model 10-160B Type B RADWASTE Shipping Cask, Revision 1, June 6, 2016.
- (8) IBL-437C Irradiator Shipping Addendum for Model 10-160B Type B RADWASTE Shipping Cask, Revision 1, February 2019.
- (9) Request for Renewal of U.S. Department of Energy (DOE) CoC No. 9204 for the Model No. 10-160B Package, Energy*Solutions* letter to James M. Shuler, dated February 24, 2020.
- (10) Request for Renewal of U.S. Department of Energy (DOE) CoC No. 9204 for ,the Model No. 10-160B Package, Energy*Solutions* letter to Christopher P. Cable, dated October 9, 2025.