SAFETY EVALUATION REPORT
Docket No. 71-9168
Model No. 8-120B
Certificate of Compliance No. 9168
Revision No. 20

SUMMARY

By letter dated May 23, 2013, Energy*Solutions* (ES) submitted an amendment request to the U.S. Nuclear Regulatory Commission for the Model No. 8-120B package. ES requested the addition of a steel plate that covers the central hollow region of the lower impact limiter to improve the shielding effectiveness of the package

On July 3, 2013, ES provided inadvertent omissions to its application, and on August 9, 2013, ES provided responses to the request for additional information (RAI) dated July 15, 2013. On September 20 and November 13, 2013, ES provided responses to an RAI letter dated September 16, 2013. NRC staff reviewed the applicant's responses and found that the package meets the requirements of 10 CFR Part 71.

1.0 GENERAL INFORMATION

A ½" thick steel plate has been added to the design of the package to cover the central hollow region of the lower impact limiter. This new plate is credited for radiation shielding under normal conditions of transport (NCT) as explained and justified in Chapter 5 of the application. The maximum gross weight of the package stays the same at 74,000 lbs but the maximum payload weight has been reduced to 14,150 lbs to account for the weight of this added steel plate. Except for those modifications, the design of the package, as well as the authorized contents, remains unchanged.

The staff reviewed Revision 19 of Energy*Solutions*' Drawing No. C-110-E-0007, sheets 1-6, and Revision 3 of Energy*Solutions*' Drawing No. DWG-CSK-12CV01-EG-0001-0.

The staff concludes that the information presented in this section of the application provides an adequate basis for the evaluation of the Model No. 8-120B package against 10 CFR Part 71 requirements for each technical discipline.

2.0 STRUCTURAL EVALUATION

The new cover plate that covers the central hollow region of the lower impact limiter is designed to remain intact and attached to the impact limiter during NCT. However, this cover plate has no significant effect on the energy-absorption characteristics of the impact limiter during the NCT and hypothetical accident conditions (HAC) free drop tests, and therefore is not considered in the NCT and HAC free drop analyses.

The structural evaluation of the package remains unchanged.

3.0 THERMAL EVALUATION

The impact limiters are not explicitly included in the thermal finite element model. For NCT, the impact limiters are conservatively represented by fully-isolated boundary conditions, and only the exposed portions of the fire shield and package body are used for heat rejection to the ambient.

The addition of the new cover plate does not change the thermal evaluation of the package or its results.

4.0 CONTAINMENT EVALUATION

The containment evaluation remains unchanged. The applicant noted an inconsistency between the reference leakage rate (L_R) of 2.2×10^{-6} cm^3/sec stated in the previous revision of the application, based on irradiated hardware, and the reference leakage rate (L_R) for the package of 1.54×10^{-6} ref-cm^3/sec, as mentioned in the corresponding safety evaluation report. This inconsistency did not affect any of the conditions of the certificate.

During the review of this amendment request, ES submitted a notification, dated August 14, 2013, regarding the failure to observe CoC conditions for the package vent port leak test hold time (ADAMS Accession Number ML13247A179). The pre-shipment leakage rate test had been performed using a pressure drop test on the primary lid, secondary lid, and vent port seals. To determine the required hold time for the pressure drop test, a maximum test volume was calculated and, for the lid seal, the maximum hold time was determined to be 60 minutes, and was conservatively used for the smaller pressure drop test volumes of the secondary lid and vent port pre-shipment leakage rate tests. The 60 minute hold time was described in Chapter 7 of the application. However, ES air pressure drop test procedure TR-TP-002 specified a 20 minute hold time for the vent port pre-shipment leakage rate test. Based on equation B.14 in ANSI N14.5, "American National Standard For Radioactive Materials – Leakage Tests on Packages for Shipment," the pressure drop test hold time is proportional to the pressure drop test total volume. In its response to staff's RAI, the applicant showed that the pressure drop test total of the test vent port volume and the test manifold volume was less than one third (20 minutes / 60 minutes) of the pressure drop test total of the primary containment seal test chamber volume and the test manifold volume. Therefore, the 20 minute hold time still provided a substantial margin for detecting any leakage from the vent port and there was no safety significance associated with this issue. The staff recognizes that new lids are used on the packages after August 31, 2013, using different testing procedures in the previous Revision 19 of the CoC.

ANSI N14.5 provides acceptable methods for demonstrating that Type B packages designed for transport of normal-form radioactive material comply with the regulatory containment requirements specified in 10 CFR Part 71. According to ANSI N14.5, a pre-shipment leakage rate test is to be performed on containment boundary seals that have been opened. Based on a 2005 information notice released by Energy*Solutions*, the containment boundary vent port seal could be opened and closed for the shipment of Low Specific Activity (LSA) material or Surface Contaminated Objects (SCO). In previous revisions of the application, a pre-shipment leakage rate test would not have to be performed if the package contained LSA/SCO contents that meet the exemption standards in 10 CFR 71.14(b)(3)(i). However, a potential scenario could occur where Type B contents could be shipped without performing a pre-shipment leakage rate test

on a vent port seal that remained closed during the Type B loading operations, even if the vent port had been opened during a prior loading of LSA/SCO contents. The vent port could also be opened while the package is disassembled, or empty between loading operations. The previous opening of the containment boundary vent port on a prior LSA/SCO shipment is not known during the loading of Type B contents. Consequently, Type B contents could be transported without performing a pre-shipment leakage rate test on a vent port that was opened during a prior loading, or between loading operations. Therefore, to prevent this from occurring, the applicant has deleted the note regarding the exemption from pre-shipment leak testing for LSA and SCO shipments. All shipments made with the package require pre-shipment leakage rate testing as indicated in Chapter 7, Operating Procedures.

Based on the review of the statements and representations in the application, the staff concluded that the containment design of the Model No. 8-120B package has been adequately described and evaluated per the change of contents and the package design meets the containment requirements of 10 CFR Part 71.

5.0 SHIELDING EVALUATION

The purpose of the shielding review is to verify that the package design meets the external radiation requirements of 10 CFR Part 71 for NCT and HAC. The applicant requested an increase in radioactivity levels of about 30% for all contents. The applicant performed a new shielding analysis to support the increase in contents by adding a steel plate to the bottom impact limiter and crediting the additional steel already present in the package. The shielding method was reviewed in detail when the staff issued Revision 19 of the CoC (ADAMS Accession No. ML12236A198). The staff's review focused on the changes to the application, and used the guidance in Section 5 of NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material."

5.1 Description of Shielding Design

5.1.1 Design Features

The shielding design features a packaging body with a steel base, steel primary and secondary lids, and a steel/lead/steel wall, with dimensions specified in Drawing No. C-110-E-0007, Revision 19. In the shielding analysis that supported Revision 19 of the CoC, the applicant relied on the lead thickness, and the steel components of the packaging (i.e., the radial shells, base plates, and lids). In this amendment request, the applicant also credits the 12 gauge steel liner inside the cavity, the 12 gauge impact limiter steel casing, the 3/16" thick radial thermal barrier, and has included a ½" steel base plate in the "hole" of the bottom impact limiter. This base plate is a new component.

The applicant had also previously modeled nominal dimensions for the steel cask components. The staff found this acceptable in Revision 19 of the CoC because the applicant had not modeled the 12 gauge steel liner inside the cavity. Since the applicant is now crediting this component, the shielding model was changed to account for these design tolerances by reducing the component thicknesses by the tolerance amount specified in the cask drawings. The staff found crediting the inner liner acceptable because the applicant accounted for all fabrication tolerances within their model.

The staff requested information clarifying the drawing with respect to the radial thermal barrier. From Drawing No. C-110-E-0007, the barrier appeared to be discontinuous, and no

discontinuities were accounted for in the shielding model. In response to staff inquiries, the applicant explained that there are discontinuities where there are the lift lug pads and the tie down pads. Based on these other features providing at least an equivalent amount of shielding as the thermal barrier, the staff found the shielding model acceptable.

The staff reviewed the package Drawing No. C-110-E-0007 and verified that the newly credited features were included. The staff found that the figures, certificate drawing, and discussion describing the shielding features are sufficiently detailed to support an in-depth technical evaluation.

5.1.2 Summary Table of Maximum Radiation Levels

The package transports a wide variety of contents and therefore determining the maximum dose rate of all possible contents is not practical. The applicant has instead back-calculated from the allowable dose rate limit the amount of radioactive contents that could be shipped. The summary table of maximum radiation levels includes sample calculations for a Cobalt-60 (Co-60) point source and a Cesium-137 (Cs-137) point source without credit for shoring. Table 5.1 in the application provides the maximum NCT and HAC dose rates for these two cases. The applicant has incorporated a 5% margin into the package operations to offset uncertainties in the shielding evaluation method, and thus ensuring that the package dose rates do not exceed the regulatory limits. The staff found that the package meets the regulatory dose rate limits in 10 CFR 71.47 for exclusive use shipments and the dose rate limits for HAC specified in 10 CFR 71.51 for these two nuclides.

5.2 Radiation Source

Contents proposed for transport include byproduct, source or special nuclear material in the form of dewatered resins, solids, powdered or dispersible solids, solidified materials, or radioactive materials in the form of activated metals or metal oxides in solid form. All these contents are to be contained within a secondary container(s). As described, the proposed contents may contain gamma sources, neutron sources and beta sources, i.e., gamma-emitting, neutron-emitting, and beta-emitting materials.

The proposed contents limits are 3,000 times a Type A quantity with further limits. Gamma-emitting contents are limited to materials with gamma energies up to 3.5 MeV and limited by the procedure in Attachment 1 to Chapter 7 of the application. The limits for gamma sources are in terms of specific gamma energies. There are also specific limits proposed for Co-60 and Cs-137.

In the application, the applicant updated the tables in Attachment 1 to Chapter 7 to increase all gamma contents by approximately 30%.

5.3 Shielding Model

The staff reviewed the structural and thermal chapters of the application and found that conditions consistent with NCT and HAC were appropriately represented in the shielding model. The staff requested additional information about the consideration of NCT tests on the impact limiter dimensions. In response to this inquiry, the applicant updated their model to include the impact limiter deformation as a result of NCT and updated all content limits.

5.3.1 Source and Shielding Configuration

The applicant evaluated the package using different models for NCT and HAC. The components of the package are modeled at the minimum dimensions specified in the certificate drawing. Credit is also taken for the 12 gauge steel cavity liner, radial thermal barrier, and presence of the impact limiters, though the impact limiter foam material is still neglected. For the top and bottom impact limiters, the model includes a steel plate that covers the voided central area of the impact limiters. The applicant uses minimum dimensions for the newly credited components. For HAC models, the impact limiter, including the shield plate, is neglected. The HAC model was also modified to move the source up into the chamfer region of the lid to account for additional streaming.

The applicant did not model this chamfer region in its NCT models. In considering the possible migration of source material up into this region and up into the cask/lid annulus, the staff placed Condition 7 in the Revision 19 of the CoC that states that two independent physical verifications shall be performed to ensure proper closure. This double verification provides reasonable assurance that material cannot migrate into this annulus during NCT. In the application for Revision 20 to the CoC, the applicant proposed to remove this condition from the CoC and add it to the operating procedures. The applicant proposed modification to the language of this condition to waive the double verification requirement for contents that are too big to migrate into that region or for resins that are uniformly distributed and that occupy a significant volume of the cask such that if a small amount of this material were to migrate into this region that its impact on dose rates would be insignificant. The staff used engineering judgment assuming that resins would be transported using a significant volume of the cask – otherwise it would not be economically feasible for a user to ship; and although a small amount of resins could migrate into the cask lid annulus, the staff used engineering judgment to conclude that the amount of activity able to migrate into this region would be negligible. The staff found that the proposed modification would still provide adequate assurance that material could not migrate up into the cask/lid annulus to the extent that any normal condition regulatory dose rate limits would be exceeded.

The allowable contents are so broad that the applicant chooses generic geometries for the contents to bound all the possible contents. These source geometries remain unchanged from the last CoC revision and therefore remain acceptable by the staff.

5.3.2 Material Properties

Materials used in the shielding evaluation are presented in Table 5.3. The applicant did not change any of the material properties in this application from the last revision of the CoC. Therefore the staff's conclusion that they are acceptable remains valid.

5.4 Shielding Evaluation

5.4.1 Methods

The applicant performed shielding calculations with MCNP5, Rev. 1.51. MCNP is a three dimensional Monte Carlo transport code developed and maintained by Los Alamos National Laboratory. The code's capabilities include modeling of and determining dose rates from package design features where radiation streaming may be a concern. This code is used

extensively for shielding calculations by industry. Given the code's capabilities and its extensive application in industry (ensuring the code is well-vetted), the staff found the code acceptable for use in the present application.

Maximum quantities of radioactive material are based on the maximum gamma energy of the content as limited by the emission rate in Table 5-5 over the range of 0.5 MeV to 3.5 MeV. The applicant calculates the values in Table 5-5 by finding the maximum allowed gamma source that meets regulatory limits at the various package surfaces. The applicant uses MCNP to calculate a dose rate response at the prescribed locations on a per source particle basis. The staff reviewed and approved the methods used in this application in the last revision of the CoC and no changes within the current application give the staff cause to believe that they are obsolete or invalid for any reason. Therefore staff's conclusion that they are acceptable remains valid.

5.4.2 Input and Output Data

The applicant provided input files for the MCNP calculations used to determine the maximum radioactivity of the contents. Staff reviewed sample input files and found that the information regarding material properties and dimensions used in the calculations is consistent with descriptions of the calculations given in the application.

The staff compared the calculation results in the calculation file NU-391 from the current application to Revision 5 used with CoC Revision 19 and noticed that there were some dose rate responses that increased despite the additional shielding. The staff would expect in every case that these would decrease. This observation led the staff to speculate that there could either be large uncertainties associated with these calculations or that there could be problems with the calculations' convergence and the staff requested information from the applicant that they explain how the MCNP uncertainty is treated and how convergence is ensured. Due to the large number of calculations used to determine the content limit tables, the staff was unable to review every output file to determine proper convergence.

In response to the staff's request, the applicant provided the relative error (uncertainty) for each calculation as well as information on how this uncertainty is treated. Based on the information submitted by the applicant, the staff determined that the uncertainties are relatively low and treated in a conservative manner. The applicant stated that almost all of the MCNP tallies (calculations) have passed all 10 of MCNP's statistical checks. For tallies that did not pass all of the statistical checks, the applicant provided the procedure they used to determine that each calculation has converged. Each of these calculations was reviewed individually by an analyst. In many cases the tally was not used to determine source limits and would have to increase substantially to affect the content limit curves. In a few cases where tallies were used to calculate content limits, these only missed one statistical check, showed good behavior in relation to other tallies with similar locations and source strengths, and had low uncertainty levels. Therefore, the staff found the information submitted by the applicant demonstrated that each calculation had converged properly.

5.4.3 Flux-to-Dose-Rate Conversion

The applicant used conversion factors that were derived from the ANSI/ANS 6.1.1-1977 standard. The applicant calculated the factors from the polynomial fit for gamma radiation given in that standard. As this is the standard that staff finds acceptable for calculation of dose rates, the staff found the applicant's conversion factors to be acceptable. The conversion factors used in the input files are consistent with those described in the application.

5.4.4 External Radiation Levels

The applicant used the regulatory limits to calculate the maximum quantities of the package contents. The applicant derived a set of limits for various contents configurations and set restrictions on how the user applies those limits to ensure that the regulatory dose rate limits are not exceeded.

The package is designed to transport radioactive materials by exclusive use shipment. Thus, the applicant used the 10 CFR 71.47 dose rate limits for exclusive use shipments. There is no enclosure included with the package design, and there are no conditions regarding the vehicle other than a width of 8 feet. So, the dose rate limits for transport in an open, or flat-bed, vehicle are used in the shielding method.

The applicant determined the source strengths (point sources) and source strength densities (distributed sources) that would meet each NCT and HAC limit for the axial top, axial bottom, and radial side of the package. Since the package is always transported in a vertical position (i.e., the package axis is vertical), the 2 meter NCT dose rate limits were only applied to the package's radial side. These calculations were performed for each of several gamma energies in the range of 0.5 to 3.5 MeV (see Table 5.5 of the SAR) and for the two common source nuclides Co-60 and Cs-137. The results of these calculations were used to create Table 5.5 of the SAR and Table 1 of Attachment 1 to Chapter 7 of the SAR (the package operations).

The quantity limits for distributed sources are in terms of source strength density instead of source strength. To allow some flexibility in this regard for the package contents, the applicant has limits for three distributed source volumes: the entire package cavity, 55 gallon drum and 2.5 ft^3.

The applicant compared the source strengths (point sources) and source strength densities (distributed sources) that were calculated to meet each dose rate limit (NCT and HAC) for the locations described above for each of the selected gamma energies and nuclides. The smallest source strength, or source strength density, that resulted in dose rates at a regulatory limit is the most limiting for the contents and is used in the tables as the limit for the contents' source strength, or source strength density, for each gamma energy, or nuclide, for each contents configuration. For the smaller distributed sources, the comparison includes NCT cases with sources having the respective volumes and HAC cases for the full cavity volume.

The staff found the approach for selecting the smallest source strength, or source strength density, which results in dose rates that equal a regulatory limit, was acceptable since it has not changed since the last revision of the CoC.

For the current application, the staff compared the results of the new calculations crediting the extra shielding with those of the calculations used to support CoC Rev. 19 to ensure that the change in values was reasonable. The staff expected in every case that the dose rate response would decrease due to the additional shielding. However in a few cases, including Cs-137 and calculations for lower energy gammas below 1.0 MeV, there were some dose rate responses that increased. The staff requested additional information from the applicant to explain this increase.

The applicant stated that the reason for this increase was due to the changes in the modeling of the shielding components. As discussed in Section 5.1.1 and 5.3.1 of this SER, by crediting the

inner steel liner, the applicant then reduced the shielding of the other steel components to account for fabrication tolerances (which were previously accounted for with the liner which was not credited). However the bolt ring and seal wear plate were modeled at maximum thickness because it raises the lid relative to the top of the lead and creates a larger streaming path and is therefore a more conservative model. For Cs-137 and some lower gamma energies, this increased the dose rate response. Co-60 and higher gamma energies that have the highest gamma dose rates at the package's axial mid-plane were not affected. Since this is bounding, the staff found this acceptable.

5.4.5 Application of Shielding Method Results

The results of the shielding method are captured in Table 5.5 and Table 1 of Attachment 1 to Chapter 7 in the application. Both Chapter 5 and Chapter 7, Attachment 1, describe how the results are to be applied by the package user to determine acceptability of the contents presented for a shipment.

This method has not changed since the last revision of the CoC and therefore the staff found it acceptable.

5.5 Evaluation Findings

Based on its review of the statements and representations in the application and independent confirmatory calculations, the staff found reasonable assurance that the shielding design has been adequately described and evaluated and that the package meets the external radiation requirements of 10 CFR Part 71.

6.0 CRITICALITY EVALUATION

Not applicable.

7.0 PACKAGE OPERATIONS

The staff also reviewed the package operations to ensure that operations relevant to shielding are adequate. These include the use of shoring to maintain the contents position within the package, performance of dose rate surveys to ensure the package meets the regulatory dose rate limits, which these radiation surveys are sufficient to account for non-uniformity of the source distribution, and that appropriate limits are used for preparation of empty packages.

Section 7.0 was revised to reference Section 8.3.2.1 for the leak test requirements for powdered solid shipments. The leak test requirement for leaktight status, included in Section 4.9 of the application, has been also included in Chapter 8 of the application.

In order to remove Condition No. 7 of the previous CoC, the following changes were made: (i) the last paragraph in Section 7.0 now specifies that shipments of powdered solids do not require a leaktight package, just that the periodic leak test is performed to leaktight standards. This paragraph also refers to Section 8.3.2.1 of the application rather than Section 4.9; (ii) a new step 7.1.21.6 was added for the shipper to confirm that the package was tested leaktight; and (iii) Section 8.3.2.1 of the application was revised to incorporate the requirements from Section 4.9 for leaktight testing.

The applicant included a new step (step 7.1.10) in the operating procedures to require two independent physical verifications of the secondary's container closure system for contents such as activated metals or radioactive sources for which hot particle migration may occur. The basis for the double verification is to ensure that small, high specific activity, particles do not have the potential to migrate up into the annular gap between the primary lid and the package bolting flange. The double physical verification requirement is waived only for uniformly distributed resins, filters, and solidified wastes with no dimensions less than 1 cm. Contents with any form of isotope sources, or with highly activated fines, swarf, crud, or other particles with less than 1 cm in size are not exempt from this requirement.

Regarding step 7.1.21.6, a new requirement was added to ensure that the package has received the required periodic leak testing prior to shipment, i.e., "Prior to shipping a loaded package, confirm that the periodic leak test described in Section 8.3.2.1 has been performed. For shipments of powdered radioactive materials, confirm that the most recent periodic leak test of the 8-120B cask demonstrated leaktight status." Practically, this could be accomplished by checking the tag on the package that gives the date on which the latest period leak test was performed and whether or not it was to leaktight standards. The applicant claimed that it is not practical for the user to confirm that that the most recent periodic leak test meets the requirements of Section 8.3.2.1 (i.e., confirm the test parameters that were used), but only necessary to confirm that the test was performed and whether or not it was to leaktight criteria. The staff agreed with that interpretation.

Based on these findings, the staff concludes that the operating procedures both meet the requirements of 10 CFR Part 71 and are adequate to assure the package will be operated in a manner consistent with its evaluation for approval

8.0 ACCEPTANCE TESTS AND MAINTENANCE PROGRAM

Staff reviewed the licensing basis for the containment seals. The applicant is qualifying a compound by performing extensive testing, then by doing additional physical acceptance testing on each delivered O-ring as a confirmatory measure. The O-rings are bought from a QL1 supplier, whose quality system is audited to assure that, when a compound is bought, O-rings to be procured in the future will have the same compound material on which extensive qualification testing was already done for this compound.

Section 8.3.2.1 was revised to include leak testing requirements for powdered solid shipments. Regarding the maximum specified graduation on the pressure gauge, the 0.1 psig graduation is no longer included as a requirement in Section 8.3.2.2. It is understood that the pressure gauge must be capable of measuring the pressure drop to the accuracy required to confirm that the acceptance criteria is satisfied.

CONDITIONS

The conditions specified in the Certificate of Compliance have been revised to incorporate several changes as indicated below:

Item No. 3.a has been revised to identify the new mailing address of Energy*Solutions* Products and Technology Group.

Item No. 3.b has been revised to identify Energy*Solutions*' consolidated application dated November 2013.

Condition No. 5(a)(2) has been revised to add the description of the new ½ inch thick steel plate covering the central hollow region of the lower impact limiter and change the maximum payload weight from 14,430 lbs to 14,150 lbs to offset the additional weight of the plate and maintain at the same time the maximum package weight as in previous revisions of the CoC.

Condition No. 5(a)(3) has been revised to include new revisions for Energy*Solutions* Drawing Nos. C-110-E-0007, sheets 1-6, and DWG-CSK-12CV01-EG-0001.

Condition No. 5(b)(1)(ii) has been edited to add commas for clarity purposes.

Condition No. 5(b)(2)(iii) has been revised to show a maximum payload weight of 14,430 lbs when including shoring and secondary containers.

Condition No. 7 of the previous revision of the certificate, which required two independent physical verifications of the secondary container's closure system, has been deleted. The requirements of Condition No. 7 have now been added to Chapter 7 of the application, as part of step 7.1.10 of the loading operating procedure. Since Condition No. 6 requires compliance with Chapter 7 of the application, Condition No. 7 is no longer necessary in the CoC.

Condition No. 11 of the previous revision of the certificate has been deleted. Condition No. 11 stated that a pre-shipment leak test was required before each shipment of Type B quantities. Such a wording could lead to a false interpretation of regulations for contents such as Low Specific Activity (LSA) or Surface Contaminated Object (SCO) materials as being exempted from a pre-shipment leak test. Section 7.1.14 of Chapter 7 has been revised, the note regarding exemption from pre-shipment leak testing for LSA and SCO shipments has been deleted and all shipments made with the package require pre-shipment leak testing as part of Chapter 7, Operating Procedures.

Condition No. 12 of the previous revision of the certificate was deleted. This condition is no longer applicable because the seals authorized in CoC Revision 17 are no longer permitted for use.

As a result of the deletion of Condition Nos. 7, 11, and 12, Conditions Nos. 8 through 14 of the previous certificate were renumbered. A new Condition No. 10 was added to authorize the use of the previous revision of the certificate for approximately one more year.

The expiration date of the certificate was not changed.

The references section was updated to include the consolidated application dated November 13, 2013.

CONCLUSION

Based on the statements and representations in the application, as supplemented, and the conditions listed above, the staff concludes that the Model No. 8-120B package design has been adequately described and evaluated and that these changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9168, Revision No. 20,
on November 22, 2013.