

SAFETY EVALUATION REPORT

Docket No. 71-9979
Model No. 9979 Package
Certificate of Compliance No. 9979
Revision No. 1

SUMMARY

By letter dated September 15, 2016, Savannah River National Laboratory (SRNL or the applicant) requested a revision to Certificate of Compliance (CoC) No. 9979 for the Model No. 9979 package.

There were no changes to the packaging design, but the applicant requested a lower mass limit for the drum polyurethane foam.

CoC No. 9979 has been amended based on the statements and representations in the application, and staff agrees that the changes do not affect the ability of the package to meet the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71.

EVALUATION

The applicant submitted an amendment request to change Note 3 on licensing drawing No. R-R2-G-00057, Rev. 8, and make a related page change in Appendix 1.1-ii of the application. No other changes were requested.

Note 3 of drawing No. R-R2-G-00057, Rev. 8, specifies an acceptable range for the mass of the polyurethane foam in the 55-gallon drum as being between 54 and 59 lbs. The original acceptable polyurethane foam mass range of 47 to 59 lbs had been reduced to a range of 54 to 59 lbs in an attempt to remove any unnecessary foam mass tolerance. However, two of the four packagings being assembled for use under CoC No. 9979, Rev. 0, have a foam mass slightly under the specified lower limit of 54 lbs in Note 3 of the licensing drawing, i.e., 53.9 lbs and 53.8 lbs, respectively.

The applicant explained that the range for the foam mass is specified to control the package weight and provide an indication that the drum is completely filled with polyurethane foam. Although the foam mass is generally predictable, there are variations due to temperature (drum and foam chemicals), humidity, drum volume, free-rise density, number of pours and other parameters. The applicant stated that the free-rise, measured each day, when chemical components are changed, or if changes are made to the process, has not been altered since fabrication of the packaging began.

The staff notes that the total payload of the contents authorized in this CoC is about half of the maximum payload weight allowed (109.8 lbs versus 200 lbs). Considering that there is no safety concern about the minimal decrease of the package weight due to the lower foam mass, the staff finds that the proposed mass limit of 52 lbs will provide an equivalent level of

safety than that demonstrated during the normal conditions of transport and hypothetical accident conditions, as previously evaluated.

Based on the statements and representations in the application, and the conditions listed in the CoC, the staff concludes that the design has been adequately described and evaluated, and meets the requirements of 10 CFR Part 71.

CONDITIONS

The following change is included in Revision No. 1 to Certificate of Compliance No. 9979:

Condition No. 5(a)(3) has been revised to include Revision No. 9 of the licensing drawing No. R-R2-G-00057.

The expiration date of the certificate is not changed.

The September 15, 2016, amendment request letter, including its attachments, is referenced in the Reference Section of this certificate.

CONCLUSION

Based on the statements and representations in the application, and the conditions listed above, the staff concludes that the Model No. 9979 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. 9979, Revision No. 1, on September 20, 2016.