

SAFETY EVALUATION REPORT

Docket No. 71-9215
Model No. NPI-20WC-6 MkII Package
Certificate of Compliance No. 9215
Revision No. 15

SUMMARY

By application dated May 7, 2018, Neutron Products, Inc. requested renewal of Certificate of Compliance (CoC) No. 9215, for the Model No. NPI-20WC-6 MkII package. Neutron Products, Inc. did not request any changes to the package design or authorized contents. The certificate has been renewed for a five year term.

EVALUATION

By application dated May 7, 2018, Neutron Products, Inc. requested renewal of CoC No. 9215, for the Model No. NPI-20WC-6 MkII package. Neutron Products, Inc. submitted a consolidated safety analysis report with their application. Neutron Products, Inc. primarily made editorial and formatting changes to the safety analysis report as well as updated drawing references in the safety analysis report. In addition, Neutron Products, Inc. added references to pencil sources. The Nuclear Regulatory Commission staff (staff) had previously evaluated pencil sources in conjunction with an amendment request to transport Cesium-137. The staff authorized this radioactive source in revision 10 to CoC No. 9215 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18145A070). Neutron Products, Inc. also increased the shield plug weight to reflect the increased use of tungsten alloy shield plugs. In reviewing the consolidated safety analysis report, the staff confirmed that structural safety evaluations were performed using 6000 lbs., the maximum package weight authorized by the CoC, and that the nominal package weight using the tungsten alloy shield plugs is approximately 5200 lbs. In addition, Neutron Products, Inc. added shielding calculations and examples. The staff reviewed the new information and determined that it did not alter the safety basis for the package.

Neutron Products, Inc. did not request any changes to either the package design or the authorized contents. However, Neutron Products, Inc. did request changes to conditions in the certificate. Neutron Products, Inc. requested that the overpack steel shell diameter in Condition 5(a)(2) be increased from 49 inches to 55 inches. After reviewing Drawing No. 240116, Rev. J, the staff revised Condition 5(a)(2) to more accurately describe the overpack steel shell description. In addition, Neutron Products, Inc. requested that Condition 7 be revised to specify tungsten alloy versus tungsten in describing plugs and spacers. After comparing the consolidated safety analysis report submitted with the application against the previous version, the staff determined that tungsten alloy is the material used to determine the safety basis; consequently staff revised the condition. Neutron Products, Inc. also requested that a requirement associated with revision 10 to CoC No. 9215 either be reconsidered or be formally incorporated into the certificate. After discussing this issue with Neutron Products, Inc., the staff conditioned the certificate to utilize a minimum of 2 inches of lead, 2 inches of tungsten, or 3 inches of steel as axial shielding material in the drum assembly (ADAMS Accession No. ML18145A070).

This condition replaced the previous Condition 9 which contained information specified in Drawing 240116, Rev. J.

In addition, the staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete. The staff also reviewed the operating and maintenance procedures for the package and found them to be adequate.

CONDITIONS

The following changes have been made to the certificate:

Condition No. 3(b) was revised to modify the date of the submitted consolidated application.

Condition 5(a)(2) was revised to more accurately describe the overpack steel shell

Condition 7 was revised to reference “tungsten alloy” versus “tungsten.”

Condition 9 was revised to impose axial shielding requirements.

Condition No. 13 was revised to authorize the use of Revision 14 of the certificate of compliance until May 31, 2019.

Condition No. 14 was revised to reflect the new expiration date of May 31, 2023.

CONCLUSION

The certificate has been renewed for a five year term that expires on May 31, 2023. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9215, Revision No. 15,
on May 7, 2018.