

## **SAFETY EVALUATION REPORT**

**Docket No. 71-9215**  
**Model No. NPI-20WC-6 MkII**  
**Certificate of Compliance No. 9215**  
**Revision No. 14**

### **SUMMARY**

By letter dated August 24, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17244A496), as supplemented September 22, 2017 (ADAMS Accession No. ML17269A014) and March 1, 2018 (ADAMS Accession No. ML18068A008), Neutron Products, Inc. submitted an amendment request to the Nuclear Regulatory Commission (NRC) to revise the certificate of compliance (CoC) for the Model No. NPI-20WC-6 MkII package. The applicant submitted a revised drawing. NRC staff reviewed the application using the guidance in NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material." Based on the statements and representations in the application, as supplemented, the staff agrees that these changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

### **1.0 GENERAL INFORMATION**

The applicant submitted a revised drawing to remove weld details associated with the protective jacket for the package. Based upon inspection findings by NRC personnel, the applicant planned to move weld information from the licensing drawings to drawings used to repair the package. However, in response to a request for additional information, the applicant confirmed that the protective jacket is an important-to-safety component and replaced the weld details on the drawing. In addition, the applicant added clarifying information about the material grade for the bolts used to secure the package as well as torque information for package closure. The revised drawing submitted with the response skipped Revision I because of an American Society Mechanical Engineers Y14.35-2014 Section 5.2 requirement which does not allow drawings to have this specific revision. Based on a review of the statements and representations in the application, the staff concludes that the package has been adequately described to meet the requirements of 10 CFR Part 71.

### **2.0 STRUCTURAL**

The staff reviewed design-basis Drawing No. 240116, Revision J, for the Neutron Products NPI-20WC-6MkII transportation package. Revision J re-created the previously approved Revision G of the same drawing using the SolidWorks® software. The staff ensured that Revision J did not inadvertently result in revisions to subcomponent dimensions and tolerances, welding specifications, and codes, standards, or other specifications for materials, fabrication, examination, and testing, as previously required in Revision G. The staff, therefore, finds that Revision J is acceptable as it replicated the previously approved Revision G.

### **3.0 THERMAL EVALUATION**

Staff reviewed the proposed change and determined that it did not impact the staff's previous SER findings regarding the package thermal design. Therefore, the staff finds that a new evaluation is not needed.

### **4.0 CONTAINMENT EVALUATION**

Staff reviewed the proposed change and determined that it did not impact the staff's previous SER findings regarding the package containment design. Therefore, the staff finds that a new evaluation is not needed.

### **5.0 SHIELDING EVALUATION**

Staff reviewed the proposed change and determined that it did not impact the staff's previous SER findings regarding the package shielding design. Therefore, the staff finds that a new evaluation is not needed.

### **6.0 CRITICALITY EVALUATION**

The package is not authorized to transport fissile material. Therefore, staff did not perform a criticality evaluation.

### **7.0 PACKAGE OPERATIONS**

Staff reviewed the proposed change and determined that it did not impact the staff's previous SER findings regarding the package operating instructions. Therefore, the staff finds that a new evaluation is not needed.

### **8.0 ACCEPTANCE TESTS AND MAINTENANCE PROGRAM REVIEW**

Staff reviewed the proposed change and determined that it did not impact the staff's previous SER findings regarding the package acceptance tests and maintenance program. Therefore, the staff finds that a new evaluation is not needed.

### **CONDITIONS**

The CoC includes the following condition(s) of approval:

Condition 5(a)(3) was revised to incorporate the most recent licensing drawings for the package.

The references section has been updated to include this request.

Minor editorial corrections were made.

## **CONCLUSIONS**

Based on the statements and representations contained in the application, as supplemented, and the conditions listed above, the staff concludes that the design has been adequately described and evaluated, and the Model No. NPI-20WC-6 MkII package meets the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9215, Revision No. 14  
on April 17, 2018.