

April 6, 2010

Mr. James M. Shuler, Manager  
DOE Packaging Certification Program  
U.S. Department of Energy  
Office of Packaging and Transportation  
EM-45, CLOV-2407  
1000 Independence Ave., SW  
Washington, DC 20585

SUBJECT: AUTHORIZATION FOR LIMITED SHIPMENTS IN THE MODEL NO. GE-100  
PACKAGE, CERTIFICATE OF COMPLIANCE NO. 5926

Dear Mr. Shuler:

As requested by your application dated March 12, 2010, and pursuant to 10 CFR Part 71, Certificate of Compliance No. 5926 for the Model No. GE-100 package is amended to authorize the following limited shipments, subject to the conditions listed below.

1. The packaging is constructed in accordance with General Electric Company Drawing Nos. 129D4727, Rev. 5; 129D4729, Rev. 5; 129D4730, Rev. 4; and 129D4731, Rev. 1.
2. Contents
  - (a) Type and form of material  

Byproduct and irradiated special nuclear material in the form of fuel rods, or plates, fuel assemblies, or meeting the requirements of special form radioactive material; or solid nonfissile irradiated metal hardware and reactor control rods (blades).
  - (b) Maximum quantity of material per package  

As specified in Certificate of Compliance No. 5926.
3. Shipment will be by closed-transport or flat-bed transport vehicle, as exclusive use.
4. Four shipments will be made from Battelle Energy Alliance, a DOE contractor at the Idaho National Laboratory Advance Test Reactor to locations within Idaho National Laboratory or to the Oak Ridge National Laboratory.
5. Package inspections are required before each use of the GE-100.
6. Authorization is for a maximum of four shipments, and expires December 31, 2010.

All other conditions of Certificate of Compliance No. 5926 remain the same. This approval is issued to the U.S. Department of Energy.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

**/RA/**

Eric J. Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 71-5926  
TAC No. L24430

Enclosure: Safety Evaluation Report

cc w/encl: Mr. Donald R. Krause, GE-Hitachi  
Nuclear Energy Americas, LLC  
R. Boyle, Department of Transportation

All other conditions of Certificate of Compliance No. 5926 remain the same. This approval is issued to the U.S. Department of Energy.

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**SAFETY EVALUATION REPORT  
DOCKET NO. 71-5926  
MODEL NO. GE-100 PACKAGE  
U.S. DEPARTMENT OF ENERGY**

**SUMMARY**

By application dated March 12, 2010, the U.S. Department of Energy (DOE) requested authorization to use the Model No. GE-100 package beyond the package authorization expiration date of October 1, 2008.

Based on the statements and representations in the application, staff agrees that the extension of use of the package, with the additional conditions stated below, meets the requirements of 10 CFR Part 71.

**BACKGROUND**

NRC amended the regulations in 10 CFR Part 71, effective October 1, 2004, to be compatible with the 1996 edition of the International Atomic Energy Agency (IAEA), "Regulations for the Safe Transport of Radioactive Material" (TS-R-1, as amended in 2000). As a result, certain transportation packages that are compatible to the IAEA 1967 edition will no longer be authorized for use under the 10 CFR Part 71 general license after October 1, 2008.

**EVALUATION**

By application dated March 12, 2010, DOE requested authorization to use the Model No. GE-100 package for four shipments beyond the package authorization expiration date of October 1, 2008. These four shipments were previously authorized to be made by GE Hitachi Nuclear Energy Americas, LLC, (GE Hitachi) based on their application dated September 29, 2008, as supplemented by email dated January 16, 2009. GE Hitachi provided the information as described in U.S. Nuclear Regulatory Commission, Regulatory Issue Summary 2008-18, "Information on Requests for Extending Use of Expiring Transportation Packages." Instead of GE Hitachi, these four shipments will be DOE shipments made by Battelle Energy Alliance, a DOE contractor at the Idaho National Laboratory.

**CONDITIONS**

Based on the statements and representations in the application, authorization is given for the transport of radioactive material by DOE using the Model No. GE-100 package with the following conditions:

1. The packaging is constructed in accordance with General Electric Company Drawing Nos. 129D4727, Rev. 5; 129D4729, Rev. 5; 129D4730, Rev. 4; and 129D4731, Rev. 1.

2. Contents

(a) Type and form of material

Byproduct and irradiated special nuclear material in the form of fuel rods, or plates, fuel assemblies, or meeting the requirements of special form radioactive material; or solid nonfissile irradiated metal hardware and reactor control rods (blades).

(b) Maximum quantity of material per package

As specified in Certificate of Compliance No. 5926.

3. Shipment will be by closed-transport or flat-bed transport vehicle, as exclusive use.
4. Four shipments will be made from Battelle Energy Alliance, a DOE contractor at the Idaho National Laboratory Advance Test Reactor to locations within Idaho National Laboratory or to the Oak Ridge National Laboratory.
5. Package inspections are required before each use of the GE-100.
6. Authorization is for a maximum of four shipments, and expires December 31, 2010.

All other conditions of Certificate of Compliance No. 5926 remain the same.

**CONCLUSIONS**

Based on the statements and representations in the DOE application dated March 12, 2010, the staff agrees that the use by DOE of the Model No. GE-100 package meets the requirements of 10 CFR Part 71, subject to the conditions listed above.

Issued on April 6, 2010.