

January 16, 2009

Donald R. Krause, Manager
Regulatory Compliance & EHS
GE Hitachi Nuclear Energy, LLC
Vallecitos Nuclear Center
6705 Vallecitos Rd.
Sunsol, CA 94586

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

Dear Mr. Krause:

As requested by your application dated September 29, 2008, as supplemented by your email dated January 16, 2009, 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. Eight shipments will be to Burlington, Massachusetts, Idaho National Laboratory, or Oak Ridge National Laboratory.
5. Package inspections are required before each use of the GE-100.
6. Authorization is for a maximum of eight shipments, and expires December 31, 2010.

D. Krause

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All other conditions of Certificate of Compliance No. 5926 remain the same. GE-Hitachi has been issued Quality Assurance Program Approval for Radioactive Material Packages No. 0170 under the provisions of 10 CFR Part 71.

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. L24281

Enclosure: Safety Evaluation Report

cc w/encl: J. Shuler, Department of Energy
R. Boyle, Department of Transportation

D. Krause

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**SAFETY EVALUATION REPORT
DOCKET NO. 71-5926
MODEL NO. GE-100 PACKAGE
GE HITACHI**

SUMMARY

By application dated September 29, 2008, as supplemented by a GE Hitachi Nuclear Energy, LLC (GE Hitachi) email dated January 16, 2009, GE Hitachi 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 September 29, 2008, GE Hitachi requested authorization to use the Model No. GE-100 package beyond the package authorization expiration date of October 1, 2008. GE Hitachi submitted supplemental information 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."

- (1) Package Information. 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). Maximum quantity of material per package is as specified in Certificate of Compliance No. 5926.
- (2) Identification of Shipment. GE Hitachi requested eight shipments be made prior to December 31, 2010. Four shipments will be from the GE Hitachi's Vallecitos Nuclear Center, Sunol, California to Burlington, Massachusetts, and four shipments will be from the Idaho National Laboratory Advanced Test Reactor to locations within Idaho National Laboratory or the Oak Ridge National Laboratory. All shipments will be by closed-transport or flat-bed transport vehicle, as exclusive use.

- (3) Reasons for Requesting Extended Use. The GE Hitachi application states that extended use of the package is needed since GE Hitachi needs to resolve technical deficiencies with the design of the replacement package. GE Hitachi expects to have a replacement package available by December 31, 2010.
- (4) Safety Justification for Continued Use and Proposed Compensatory Measures. GE Hitachi proposed specific compensatory measures to assure that shipments would have equivalent safety. These include exclusive use shipment and transport during times of low road usage and off-rush hour traffic.
- (5) A Plan and Schedule to Acquire Replacement Packages or Complete Necessary Shipments. GE Hitachi expects to resolve technical deficiencies with the design of the replacement package and to have the replacement package available for use by December 31, 2010.

CONDITIONS

Based on the statements and representations in the application, as supplemented, authorization is given for the transport of radioactive material by GE Hitachi 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. Eight shipments will be to Burlington, Massachusetts, Idaho National Laboratory, or Oak Ridge National Laboratory.
5. Package inspections are required before each use of the GE-100.
6. Authorization is for a maximum of eight 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 GE Hitachi application dated September 29, 2008, as supplemented by GE Hitachi email dated January 16, 2009, the staff agrees that the use by GE Hitachi of the Model No. GE-100 package meets the requirements of 10 CFR Part 71, subject to the conditions listed above.

Issued on January 16, 2009.