

71-9044



Portland General Electric Company

James E. Cross Vice President, Nuclear

September 24, 1990

Trojan Nuclear Plant
Docket 50-344
License NPF-1

Director, Office of Nuclear Material
Safety and Safeguards
Attn: Mr. Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and Transportation
U.S. Nuclear Regulatory Commission
Washington DC 20555

Dear Mr. MacDonald:

Packaging and Transportation of Radiation Material

In accordance with Title 10, Code of Federal Regulations, Part 71.12 (10 CFR 71.12) Portland General Electric Company (PGE) requests the addition of Trojan Nuclear Plant, License NPF-1, to the list of users for Nuclear Regulatory Commission (NRC) Certificate of Compliance for Radioactive Materials Packages Certificate Number 9044, Package Identification Number USA/9044/B()F. This Certificate was issued to the General Electric (GE) Company under Docket Number 71-9044.

Regulation 10 CFR 71.12 grants a general license to all NRC licensees to use an NRC approved container providing the requirements of 10 CFR 71 Subpart H, Quality Assurance, are satisfied (i.e., the licensee has a previously approved Quality Assurance Program and the NRC is notified prior to initial use). The NRC has previously approved Topical Report PGE-8010,

1/1

9009270251 500924
PDR ADDOCK 071-9044
C PDC

21 SW Salmon St, Portland, OR 97204
503/464-8897

NT01

Portland General Electric Company

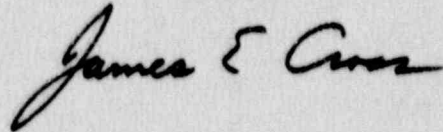
Mr. Charles E. MacDonald

September 24, 1990

Page 2

Report PGE-8010, Trojan Nuclear Plant "Nuclear Quality Assurance Program" for Radioactive Material Packages (No. 0327 dated August 1, 1989). Copies of the NRC Certificate of Compliance for the GE container and the NRC approval of the PGE Quality Assurance Program are attached. PGE plans to use this GE container this month to ship an irradiated component to the Westinghouse Corporation.

Sincerely,



Attachment

cc: U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington DC 20555

Mr. John B. Martin
Regional Administrator, Region V
U.S. Nuclear Regulatory Commission

Mr. David Stewart-Smith
State of Oregon
Department of Energy

Mr. R. C. Barr
NRC Resident Inspector
Trojan Nuclear Plant



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DUKE COCKFIELD

AUG 7 1989

AUG 11 1989

SGTB:LLG
72-0327

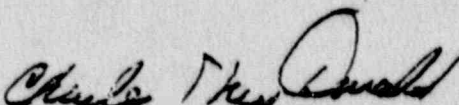
Portland General Electric Company
ATTN: Mr. David W. Cockfield, Vice President
121 SW Salmon Street
Portland, OR 97204

Gentlemen:

Enclosed is Quality Assurance Program Approval for Radioactive Material Packages No. 11327, Revision No. 3.

Please note the conditions included in the approval.

Sincerely,


Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards
and Transportation, NRC

Enclosure:
As stated

Copies to: Seaman, Meek, T. Price, INP:GOV REL P:NRC CHRONO, NRC TO PGE,
INP:POW ST OP 7-5:Radioactive Transportation

8908090410

QUALITY ASSURANCE PROGRAM APPROVAL
FOR RADIOACTIVE MATERIAL PACKAGES

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 71, and in reliance on statements and representations heretofore made in item 5 by the person named in item 2, the Quality Assurance Program identified in item 5 is hereby approved. This approval is issued to satisfy the requirements of Section 71.101 of 10 CFR Part 71. This approval is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

2. NAME Portland General Electric Company			1. EXPIRATION DATE August 31, 1994
STREET ADDRESS 121 SW Salmon Street			4. DOCKET NUMBER 71-0327
CITY Portland	STATE OR	ZIP CODE 97204	
3. QUALITY ASSURANCE PROGRAM APPLICATION DATE(S) May 10, 1979 and July 14, 1989			
6. CONDITIONS Activities conducted under applicable criteria of Appendix B to 10 CFR Part 50 for operations at the Trojan Nuclear Power Plant (NRC Docket No. 50-344) to be executed in accordance with Quality Assurance Program PGE-8010, as amended, and included as Chapter 17.2 of the FSAR.			



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald
Charles E. MacDonald

AUG 01 1989

DATE

CHIEF, TRANSPORTATION BRANCH
DIVISION OF SAFEGUARDS AND TRANSPORTATION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

89080904120

NRC FORM 618
(8-85)
10 CFR 71

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES**

U.S. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
9044	15	USA/9044/B()F	1	5

2. PREAMBLE

- a. This certificate is issued to certify that the packaging and contents described in item 5 below, meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

a. ISSUED TO (Name and Address)

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

General Electric Company
Vallecitos Nuclear Center
Pleasanton, CA 94566

General Electric Company application dated
February 1, 1982, as supplemented.

c. DOCKET NUMBER 71-9044

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

(a) Packaging

- (1) Model No.: 1600
- (2) Description

Steel encased lead shielded shipping cask. A double-walled steel cylinder protective jacket encloses the cask during transport. It is bolted to a steel pallet. The cask is closed by a lead-filled flanged plug fitted with a silicone rubber gasket and bolted closure. The cavity is equipped with a drain line and the physical description is as follows:

Cask height, in	67.19
Cask diameter, in	38.5
Cavity height, in	54.0
Cavity diameter, in	26.5
Lead shielding, in	5.0
Protective jacket height, in	81.88
Protective jacket width, in	68.0
Packaging weight, lb	25,500

⑤

8710270092

CONDITIONS (continued)

Page 2 - Certificate No. 9044 - Revision No. 15 - Docket No. 71-9044

5. (a) Packaging (continued)

(3) Drawings

The Model No. 1600 packaging is constructed in accordance with the following General Electric Company Drawing Nos.: 129D4735, Rev. 4*; 129D4736, Rev. 3; 129D4737, Rev. 6; and 129D4738, Rev. 1.

*Except item 2 hex hd bolts must be ten, 2.0-4.5 UNC-2A x 4.5 inches to 5.0 inches long, A-449 bolts.

Lifting and/or tie-down devices which are a structural part of the package must be in accordance with the above drawings.

(b) Contents

(1) Type, form and maximum quantity of material per package

Plutonium in excess of 20 curies per package must be in the form of metal, metal alloy or reactor fuel elements; and

- (i) Byproduct material and special nuclear material as solid metal or oxides. Decay heat not to exceed 600 watts. The radioactive material shall be in the form of fuel rods, or plates, fuel assemblies, or meeting the requirements of special form radioactive material.

500 gm U-235 equivalent mass; or

- (ii) Neutron sources meeting the requirements of special form radioactive material.

500 gm U-235 equivalent mass. Decay heat not to exceed 50 watts; or

- (iii) Irradiated PuO_2 and UC_2 fuel rods clad in Zircalloy or stainless steel. Decay heat not to exceed 600 watts. All fuel rods shall be contained within a closed 5-inch Schedule 40 pipe with a maximum useable length of 39-5/8 inches.

1,200 gm fissile material with no more than 300 gm fissile material per 5-inch Schedule 40 pipe.

CONDITIONS (continued)

Page 3 - Certificate No. 9044 - Revision No. 15 - Docket No. 71-9044

5. (b) (1) Contents (continued)

- (iv) Process solids, either dewatered, solid, or solidified in a secondary sealed container meeting the requirements for low specific activity radioactive material.
- (v) Solid nonfissile irradiated metal hardware, reactor control rods (blades), reactor start-up sources, and segmented boron carbide tubes (tube contents not to exceed a Type A quantity).
- (vi) Radioactive (Hot Cell) waste materials immobilized with cement grout and contained in a 55-gallon (or extended 55-gallon drum) DOT Specification 17H or 17C steel drum, lid and closure. The waste material must be packaged in accordance with the Procedural Outline of the Immobilization of Cell Waste Using Cement Grout, Attachment 1 of the December 1, 1981 supplement. The cement grout must be at least 50 volume percent (estimated) of the drum contents and relatively uniformly distributed throughout the drum. At least 3/4" thick layer of grout must cover all radioactive waste contents. Decay heat not to exceed 100 watts, and fissile material not to exceed 500 grams U-235 equivalent mass.

(c) Fissile Class

III

Maximum number of packages per shipment

Contents 5.(b)(1)(i), 5.(b)(1)(ii), 5.(b)(1)(iii), or 5.(b)(1)(vi):

Two (2).

6. The U-235 equivalent mass is determined by U-235 mass plus 1.66 times U-233 mass plus 1.66 times Pu mass.

7. (a) For any package containing water and/or organic substances which could radiolytically generate combustible gases, determination must be made by test and measurements or by analysis of a representative package such that the following criteria are met over a period of time that is twice the expected shipment time:
- (i) The hydrogen generated must be limited to a molar quantity that would be no more than 5% by volume (or equivalent limits for other inflammable gases) of the secondary container gas void if present at STP (i.e., no more than 0.063 g-moles/ft³ at 14.7 psia and 70°F); or
 - (ii) The secondary container and cask cavity must be inerted with a diluent to assure that oxygen must be limited to 5% by volume in those portions of the package which could have hydrogen greater than 5%.

CONDITIONS (continued)

Page 4 - Certificate No. 9044 - Revision No. 15 - Docket No. 71-9044

For any package delivered to a carrier for transport, the secondary container must be prepared for shipment in the same manner in which determination for gas generation is made. Shipment period begins when the package is prepared (sealed) and must be completed within twice the expected shipment time.

- (b) For any package containing materials with radioactivity concentration not exceeding that for low specific activity material, and shipped within 10 days of preparation, or within 10 days after venting of drums or other secondary containers, the determination in (a) above need not be made, and the time restriction, in (a) above does not apply.
8. For packaging of neutron sources, the cavity drain line must be closed with a plug with a melting temperature of 200°F and the cask cavity must be dry before delivery of the package to a carrier.
 9. For packaging of other than neutron sources, the cask must be delivered to a carrier dry and the cavity drain line must be closed with a plug which will maintain its seal at temperatures up to at least 620°F.
 10. Shoring must be provided to minimize movement of contents during accident conditions of transport.
 11. Prior to each shipment the silicone rubber lid gasket(s) must be inspected. This gasket(s) must be replaced if inspection shows any defects or every twelve (12) months, whichever occurs first. Cavity drain line must be sealed with appropriate sealant applied to threads of pipe plug.
 12. For packaging of neutron sources, 50 times the measured neutron dose rate at one meter from the surface of a cask must be less than 1,000 mrem/hr.
 13. The contents described in 5(b)(1)(iv) must be transported on a motor vehicle, railroad car, aircraft, inland water crafts, or hold or deck of a seagoing vessel assigned for sole use of the licensee.
 - 14. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
 15. Expiration date: October 31, 1992.

CONDITIONS (continued)

Page 5 - Certificate No. 9044 - Revision No. 15 - Docket No. 71-9044

REFERENCES

General Electric Company application dated February 1, 1982.

Supplements dated: March 30, 1982; January 17 and February 4, 1983; April 28, 1986; and September 29, 1987.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald
Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and
Transportation, NMSS

Date: OCT 28 1987