



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

OCT 17 1978

FCTR:RHO
71-5908

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Those on attached list

Gentlemen:

Enclosed is Certificate of Compliance No. 5908, Revision No. 4, for the Model No. DOT-6M Type B shipping package. This Certificate of Compliance supersedes, in its entirety, Certificate of Compliance No. 5908, Revision No. 3, dated September 8, 1978. Changes made to the enclosed certificate are indicated by vertical lines in the margin.

Those on attached list have been registered as users of this package under the general license provisions of 10 CFR §71.12(b) or 49 CFR §173.393a.

Addressees should make the proper distribution within their organizations for use of this package under the general license.

This approval constitutes authority to use this package for the shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR §173.393a.

Sincerely,

RH Olegarden

for Charles E. MacDonald, Chief
Transportation Branch
Division of Fuel Cycle and
Material Safety

Enclosure: As stated

cc: w/encl

Mr. Richard R. Rawl
Department of Transportation

Addressees list: See next page

7810270222

Model No. DOT-6M Type B Packaging
USA/5908/B()F

Addressees: w/enc1

Ltr dtd: OCT 17 1978

The Babcock & Wilcox Company
ATTN: Mr. Robert A. Williams
609 North Warren Avenue
Apollo, PA 15613

Knolls Atomic Laboratory
ATTN: Mr. George Halsey
P.O. Box 1072
Schenectady, NY 12301

Bettis Atomic Power Laboratory
ATTN: Mr. Richard F. Beyer
P.O. Box 79
West Mifflin, PA 15122

Nuclear Fuel Services, Inc.
ATTN: Mr. C. J. Michel
Erwin, TN 37650

U.S. Department of Energy
ATTN: Mr. William H. Travis
P. O. Box E
Oak Ridge, TN 37830

Los Alamos Scientific Laboratory
ATTN: Mr. John Ramsey
P. O. Box 990
Los Alamos, NM 87545

U.S. Department of Energy
ATTN: Mr. C. E. Oddis
P. O. Box 109
West Mifflin, PA 15122

Union Carbide Corporation
ATTN: Mr. James K. Cox
P.O. Box Y
Oak Ridge, TN 37830

U.S. Department of Energy
Idaho Operations Office
ATTN: Mr. R. J. Beers
550 2nd Street
Idaho Falls, ID 83401

United Nuclear Corporation
ATTN: Mr. William F. Kirk
67 Sandy Desert Road
Uncasville, CT 06382

U.S. Department of Energy
Albuquerque Operations Office
ATTN: Mr. E. L. Barraclaugh
P.O. Box 5400
Albuquerque, NM 87115

U.S. Department of Energy
Richland Operations Office
ATTN: Mr. James M. Peterson
P. O. Box 550
Richland, WA 99352

U.S. Department of Energy
Division of Naval Reactors
ATTN: Mr. R. S. Brodsky
Washington, DC 20545

United Nuclear Corporation
ATTN: Mr. R. A. Nelson
Wood River Junction, RI 02894

General Atomic Company
ATTN: Mr. William R. Mowry
P. O. Box 81608
San Diego, CA 92138

Monsanto Research Corporation
ATTN: Mr. Harold L. Coleman
1515 Nicholas Road
Dayton, OH 45407

U.S. NUCLEAR REGULATORY COMMISSION
CERTIFICATE OF COMPLIANCE
For Radioactive Materials Packages

1.(a) Certificate Number 5908	1.(b) Revision No. 4	1.(c) Package Identification No. USA/5908/B()F	1.(d) Pages No. 1	1.(e) Total No. Pages 3
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2. PREAMBLE

- 2.(a) This certificate is issued to satisfy Sections 173.393a, 173.394, 173.395, and 173.396 of the Department of Transportation Hazardous Materials Regulations (49 CFR 170-189 and 14 CFR 103) and Sections 146-19-10a and 146-19-100 of the Department of Transportation Dangerous Cargoes Regulations (46 CFR 146-149), as amended.
- 2.(b) The packaging and contents described in item 5 below, meets the safety standards set forth in Subpart C of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 2.(c) 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—

3.(a) Prepared by (Name and address):

The Babcock & Wilcox Company
609 N. Warren Avenue
Apollo, Pennsylvania 15613

3.(b) Title and identification of report or application:

Nuclear Materials and Equipment Corporation
application dated May 3, 1974, as supplemented.

3.(c) Docket No. 71-5908

4. CONDITIONS

This certificate is conditional upon the fulfilling of the requirements of Subpart D of 10 CFR 71, as applicable, and the conditions specified in item 5 below.

5. Description of Packaging and Authorized Contents, Model Number, Fissile Class, Other Conditions, and References:

(a) Packaging

(1) Model No.: DOT-6M Type B

(2) Description

Metal packaging as described and constructed in accordance with DOT Specification 6M (Title 49 §178.104).

(b) Contents

(1) Type and form of material

- (i) Solid radioactive materials which will not decompose at temperatures up to 250°F. Carbide compounds are not authorized; or
- (ii) UO_2 or UO_2-ThO_2 binary mixtures in the form of powder or compact pellets. The uranium isotopic content is nominally 97% U-233 with 10 ppm U-232; or
- (iii) Plutonium nitrate or uranyl nitrate solution in flame sealed glass ampoules or screw top plastic vials, each within one or more additional plastic vials with taped lids, and within a sealed product can or polyethylene bottle containing a sufficient amount of vermiculite to absorb twice the liquid contents present.
- (iv) Pu-238 neutron sources. Sources must be contained within double encapsulated stainless steel source capsules in accordance with Monsanto letter dated October 16, 1978.

5. (b) Contents (continued)

(2) Maximum quantity of material per package and fissile class

- (i) For the material described in 5.(b)(1)(i), the maximum fissile material and maximum hydrogen per package for Fissile Class I is as follows:

<u>Fissile Material</u>	<u>Maximum fissile material per package, kilograms</u>	<u>Hydrogen Material per package, grams</u>
U-235	1.6	20
Pu	0.9*	11
U-233	0.5	6.4

*Because of the 10 watt thermal decay heat limitation, the limit for Pu-238 is 0.02 kilograms. Plutonium in excess of twenty (20) curies per package must be in the form of metal, metal alloy or reactor fuel elements.

- (ii) For the material described in 5.(b)(1)(i) the maximum U-235 loading for uranium bearing materials with an H/X \leq 3 and the minimum transport index to be assigned to each package for Fissile Class II is as follows:

<u>Maximum Kgs U-235</u>	<u>Minimum Transport Index</u>
4.2	0.1
5.4	0.2
7.3	0.5
9.1	1.0

- (iii) For the material described in 5.(b)(1)(ii) the maximum quantity of U-233 is 500 grams at an H/U ratio not to exceed 20, as Fissile Class III with a limit of 51 packages per shipment.
- (iv) For the material described in 5.(b)(1)(iii) the maximum quantity of material is not to exceed 20 Ci radioactivity and 47 ml of solution. Fissile material shall not exceed 10 grams.
- (v) For the material described in 5.(b)(1)(iv) the maximum quantity of plutonium is 100 Ci.

6. Two steel through bolts may be installed between the lid and bottom of the steel drums.

7. Venting may be provided by a 1-inch diameter hole in the drum lid backed by a minimum 1/2-inch thick Cerafelt refractory pad.
8. Maximum decay heat per package shall not exceed ten (10) watts.
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12(b).
10. Expiration date: February 28, 1981.

REFERENCES

References Required for All Contents Except Contents Described in 5.(b)(1)(iv)

Nuclear Materials and Equipment Corporation application dated May 3, 1974.

Additional Reference Required for Contents Described in 5.(b)(1)(ii)

Westinghouse Electric Corporation supplement (WAPD-RS(CC)-620) dated May 8, 1973.

Additional Reference Required for Contents Described in 5.(b)(1)(iii) and 5.(b)(2)(iv)

Allied Chemical Corporation, Report No. ICP-1061, December 1974.

Reference Required for Contents Described in 5.(b)(1)(iv)

Monsanto Research Corporation application dated October 16, 1978.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

R H Odegarden

for Charles E. MacDonald, Chief
Transportation Branch
Division of Fuel Cycle and
Material Safety

Date: Oct 17 1978

MAILGRAM SERVICE CENTER
MIDDLETON, VA. 22645

Mailgram

1-027388C283007 10/10/78 TWX JRC BHDA WSHC
06 DOCKETING & SERVICE SECTION

OFFICE OF THE SECRETARY
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555



RE: CAROLINA POWER & LIGHT COMPANY (SHEARON HARRIS
NUCLEAR POWER PLANT, UNITS 1,2,3 AND 4) - DOCKET
NOS. 50-400, 50-401, 50-402, 50-403

THE MEMBERS OF THE ATOMIC SAFETY AND LICENSING BOARD IN
THE SHEARON HARRIS PROCEEDING WILL BE INTERVIEWED BY AN
INSPECTOR OF THE COMMISSION'S OFFICE OF INSPECTOR AND
AUDITOR ON MATTERS DEEMED APPROPRIATE BY THE BOARD ON
OCTOBER 12, 1978 BEGINNING AT 3:30 PM IN THE FOURTH FLOOR
CONFERENCE ROOM, WEST TOWERS BUILDING, 4350 E/W HIGHWAY,
BETHESDA, MARYLAND. PARTIES TO THE SHEARON HARRIS
PROCEEDING MAY ATTEND. A TRANSCRIPT OF THE INTERVIEW WILL
BE FILED IN THE PUBLIC RECORD OF THE PROCEEDING.

IVAN W. SMITH, BOARD CHAIRMAN
(U.S. NUCLEAR REGULATORY COMMISSION
US NUCLEAR REGULATORY COMMISSION
WASHINGTON, 20555)

15:52 EST

MGMCOMP MGM

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7810270227

C.R. Stephens

TELEGRAPHIC MESSAGE

NAME OF AGENCY U.S. Nuclear Regulatory Commission Atomic Safety and Licensing Board Panel Washington, D.C. 20555		PRECEDENCE ACTION: INFO:	SECURITY CLASSIFICATION
ACCOUNTING CLASSIFICATION	DATE PREPARED October 10, 1978		TYPE OF MESSAGE <input type="checkbox"/> SINGLE <input type="checkbox"/> BOOK <input checked="" type="checkbox"/> MULTIPLE-ADDRESS
FOR INFORMATION CALL			
NAME Ivan W. Smith	PHONE NUMBER (301) 492-7332		
THIS SPACE FOR USE OF COMMUNICATION UNIT			

MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)

TO:
CHARLES A. BARTH, ESQ.
COUNSEL FOR NRC STAFF
OFFICE OF THE EXECUTIVE LEGAL DIRECTOR
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

RICHARD E. JONES, ESQ.
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DOCKETING & SERVICE SECTION
OFFICE OF THE SECRETARY
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555



SECURITY CLASSIFICATION

PAGE NO. NO. OF PGS.

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