

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

1.(a) Certificate Number	1.(b) Revision No.	1.(c) Package Identification No.	1.(d) Pages No.	1.(e) Total No. Pages
6406	2	USA/6406/AF	1	4

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): U.S. Department of Energy Division of Naval Reactors Washington, D.C. 20545	3.(b) Title and identification of report or application: U.S. Energy Research and Development Administration Application dated July 19, 1977, as supplemented. 3.(c) Docket No. 71-6406
--	---

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.: None specified
- (2) Description

Specific packaging is not required. Safety is independent of packaging.

(b) Contents

- (1) Type and form of material

Unirradiated fuel assemblies of the following types:

- (i) S5G Fuel Experiment Assembly (FEA) in the FEA shipping container.
- (ii) S5G Double Fuel Experiment Assembly (DFEA) in the DFEA shipping container.
- (iii) A1W-3 Removable Uninstrumented Subassembly (RUS) in the Model 25.0 shipping container.
- (iv) A1W-3 Prototype "A" Module or A1W-3 Shipboard "A" Module in the Model 2.7/3.6 shipping container.

1062 156

7910020041

(b) Contents (Continued)

- (v) Rodded instrumented SIC fuel module in the Model 7481E12 shipping container.
- (vi) SIC fuel module or SIC peripheral assembly in the SIC bird cage shipping container.
- (vii) S1W-3 Removable Subassembly (RSA) in the S1W RSA/Metal Box.
- (viii) S5W-2 Removable Subassembly (RSA) in the S5W RSA/Bird Cage.
- (ix) S5W-R2/R3 or S5W-2 module in the S5W New Module Container.
- (x) A1W-2/R2 cluster or half cluster in the Model 658C shipping container.
- (xi) S3G-2A/2B fuel module in the Model 7481E12 or Model 9SK218 shipping container.
- (xii) D2W rodded fuel cell or unrodded corner type D2W fuel module in a model 658H1AB shipping and storage container. Rodded type fuel module shall have a control rod and control rod holddown device installed.
- (xiii) S7G unit cell or reactor cell assembly in a model 658E1AB shipping and storage container, with shipping clamp installed.
- (xiv) Advanced Test Core (ATC) welded fuel cluster or ATC cage assembly fuel cluster or ATC cage assembly fuel cluster in a model 660B1/660C1 container.
- (xv) D1G fuel module in a model 572A1 or 572B1 shipping container and D1G Removable Fuel Assembly (RFA) in a Model 573A1 or 573B1 shipping container. A control rod and control rod holddown device need not be installed in the D1G fuel module.
- (xvi) D1G Removable Fuel Assembly (RFA) in a model 573A1 or 573B1 shipping container.
- (xvii) PWR Core 1 (Seed 2, 3 or 4) unrodded fuel assembly or PWR Core 2 (Seed 1 or 2) unrodded fuel assembly, in unspecified shipping containers.
- (xviii) PWR Core 1 (Seed 2, 3 or 4) unrodded fuel subassembly or PWR Core 2 (Seed 1 or 2) unrodded fuel subassembly, in unspecified shipping containers.
- (xix) S8G rodded fuel cell in unspecified shipping container with control rod holddown device installed.
- (xx) S5G type unit cell in a 658E1AB shipping container.

(xxi) A1W-3 Prototype Peripheral Subassembly or A1W-3 Prototype Center Subassembly in the Model 2.7/3.6 shipping container.

(2) Maximum quantity of material per package

(i) One fuel assembly as described in 5(b)(1)(i), 5(b)(1)(ii), 5(b)(1)(iii), 5(b)(1)(iv), 5(b)(1)(v), 5(b)(1)(vi), 5(b)(1)(vii), 5(b)(1)(viii), 5(b)(1)(ix), 5(b)(1)(x), 5(b)(1)(xi), 5(b)(1)(xii), 5(b)(1)(xiii), 5(b)(1)(xiv), 5(b)(1)(xvi), 5(b)(1)(xvii), 5(b)(1)(xviii), 5(b)(1)(xix) or 5(b)(1)(xx).

(ii) Two fuel assemblies as described in 5(b)(1)(xv).

(iii) Three fuel assemblies as described in 5(b)(1)(xxi).

(c) Fissile Class

III

Maximum number of packages per shipment:

- |  |           |
|--|-----------|
| (1) For the contents described in 5(b)(1)(ii), 5(b)(1)(iv), 5(b)(1)(vi), 5(b)(1)(xi), 5(b)(1)(xii), 5(b)(1)(xiii), 5(b)(1)(xiv), 5(b)(1)(xv), 5(b)(1)(xvii), 5(b)(1)(xix), 5(b)(1)(xx) or 5(b)(1)(xxi) and limited in 5(b)(2)(i), 5(b)(2)(ii) and 5(b)(2)(iii) | 1 (one)   |
| (2) For the contents described in 5(b)(1)(iii), 5(b)(1)(v), 5(b)(1)(ix), 5(b)(1)(x) or 5(b)(1)(xviii) and limited in 5(b)(2)(i).   | 2 (two)   |
| (3) For the contents described in 5(b)(1)(i) and 5(b)(1)(viii) and limited in 5(b)(2)(i).  | 3 (three) |
| (4) For the contents described in 5(b)(1)(vii) and limited in 5(b)(2)(i).  | 4 (four)  |
| (5) For the contents described in 5(b)(1)(xvi) and limited in 5(b)(2)(i).  | 8 (eight) |

6. Commingling of packages for Fissile Class III shipment is authorized provided that the sum of the ratios of the number of packages of an individual type to be shipped to the maximum allowable number of packages of that type per shipment does not exceed unity.

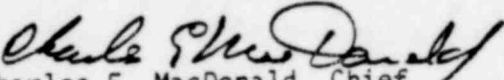
7. Expiration date: July 31, 1983

REFERENCES

U.S. Energy Research and Development Administration application dated July 19, 1977.

Supplements: Department of Energy letters G#5868; dated January 4, 1978, with enclosures, and G #6291; dated July 13, 1979.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: SEP 14 1979