Form NRC-618 (12-73) 10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION CERTIFICATE OF COMPLIANCE

For Radioactive Materials Packages

1.(a) Certificate Number 6273	1.(b) Revision No.	1.(c) Package Identification No. USA/6273/AF	1.(d) Pages No. 1.(e) Total No. Pages
----------------------------------	--------------------	---	---------------------------------------

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 continuts 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.Icl 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):

Allied Chemical Corporation P.O. Box 430 Metropolis, IL 62960 3.(b) Title and identification of report or application:

Allied-General Nuclear Services application dated April 29, 1975, as supplemented.

3.(c) Docket No.

3.161

71-6273

4. CONDITIONS

This certificate is conditional upon the fulfilling of the requirements of Support 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 Nos.: 48A, 48X, 48F, and 48Y
 - (2) Description

Metal 48-inch UFs cylinders as described in Section 7, ORO-651, Rev. 3.

- (b) Contents
 - (1) Type and form of material
 - (i) Uranium hexafluoride (UF6) heels.
 - (ii) Uranium hexafluoride (UF $_6$) in solid form which meets the requirements as low specific activity material as defined in 10 CFR §71.4(g).

POOR ORIGINAL

- 5. (b) Contents (continued)
 - (2) Maximum quantities of material per package
 - (i) For the contents described in 5(b)(i)(i):

Type A quantities of fissile radioactive material with a maximum U-235 enrichment, pounds UF $_6$, and U-235 content for the cylinder models as follows:

Model		Max. Enrichment	Max. UF ₆	Max. U-235
Number		w/o U-235	Pounds	kgs
48A, 48F,		4.5	50.0	0.690

(ii) For the contents described in 5(b)(1)(ii):

Maximum U-235 enrichment, pounds UF $_{6}$, and U-235 content for the cylinder models as follows:

Model Number	Max. Enrichment w/o U-235	Max. UF 6	Max. U-235 kgs
48 ⁴ , 48A	1.0	21,030	64.5
48f	1.0	27,030	82.9
48Y	1.0	27,560	84.5

(c) Fissile Class

For the contents descr bed in 5(b)(1)(i) and limited in 5(b)(2)(i).

Fissile Class

- 6. Valve protectors shall be provided as described in ORO-651, Rev. 3.
- 7. The fabrication, assembly, testing, maintenance, and use of packagings shall be in accordance with the requirements of ORO-651, Rev. 3. Tolerance dimensions for the Model No. 48-Y cylinder may be in accordance with Attachment I to Virginia Electric and Power Company letter dated December 20, 1976.
- 8. For the contents described in 5(b)(1)(ii) and limited in 5(b)(2)(ii) the package shall be transported on a motor vehicle, railroad car, aircraft, inland wafer craft, or hold or deck of a seagoing vessel assigned for the sole use of the shipper.

Page 3 - Certificate No. 6273 - Revision No. 4 - Docket No. 71-6273

- The packages authorized by this certificiate are hereby approved for use under the general license provisions of 10 CFR §71.12(b).
- 10. Expiration date: November 30, 1985.

REFERENCES

Allied-General Nuclear Services application dated April 29, 1975.

Supplement dated: July 29, 1975.

Fissile Class I Shipment of Uranium Hexafluoride "Heel" Cylinders, K-L-6249, Rev. 1, June 5, 1974.

Uranium Hexafluoride Handling Procedures and Container Criteria, ORO-551, Rev. 3, August 1972.

Additional supplement for the Model No. 48-Y packaging: Virginia Electric and Power Company supplement dated December 20, 1976.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald, Chief

Transportation Certification Branch

Division of Fuel Cycle and

RH Odegaarten

Material Safety

NOV 06 1980