

SEP 30 1968

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 70-36  
 SNM-33, Amendment No. 71-21  
 70-371  
 SNM-368, Amendment No. 71-21  
 70-320  
 SNM-777, Amendment No. 71-16

United Nuclear Corporation  
 Post Office Box 1283  
 565 Winchester Avenue  
 New Haven, Connecticut 06503

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Attention: Mr. D. F. Cronin  
 Director of Licensing

Gentlemen:

Enclosed are Amendments Nos. 71-21, 71-21, and 71-16 to Special Nuclear Material Licenses Nos. SNM-33, SNM-368, and SNM-777, respectively, to authorize the delivery of special nuclear material to a carrier for transport in the URC-2600 package.

Please note that these amendments do not authorize the transport of special nuclear material. Such transport is normally subject to regulation by the Department of Transportation (DOT). Questions regarding their requirements should be directed to DOT.

Sincerely,

Donald A. Nussbaumer, Chief  
 Source & Special Nuclear Materials  
 Branch  
 Division of Materials Licensing

Enclosures:  
 As stated

cc: Mr. William A. Brobst  
 Department of Transportation

(See Docket No. 70-36 for concurrences).

OFFICE ▶	DML	DML:GB	DML			
SURNAME ▶	GMaGDonald:jf	CDLuke	DANussbaumer			
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UNITED STATES  
ATOMIC ENERGY COMMISSION

SEP 30 1968

LICENSE AMENDMENT  
for  
DELIVERY OF SPECIAL NUCLEAR MATERIAL  
to a  
CARRIER FOR TRANSPORT

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 70, and Part 71, the following amendment to the special nuclear material license identified below is hereby issued, authorizing the licensee to deliver special nuclear material to a carrier for transport, and is subject to the conditions specified in that license and to the conditions specified below.

Licensee	
1. Name: United Nuclear Corporation	3. License No.: <u>SNM-33</u>
2. Address: Post Office Box 1883 365 Winchester Avenue New Haven, Connecticut 06508	Amendment No.: <u>71-21</u>
	4. Docket No.: <u>70-36</u>

CONDITIONS

5. (a) Packaging

(1) Model number

UNC-2600

(2) Description

Inner container is an 11-gage steel box of maximum 25 square inches cross section by 96" long supported in a 22 1/2" ID by 101" long 14-gage steel drum by an insertable cage formed by nine 21 1/2" diameter by 3/8" thick steel plates spaced approximately 12" apart, with a channel formed through the center of the plates by angle iron. Package constructed in accordance with United Nuclear Corporation Drawings E-20354, Sheets 1 through 5.

(b) Contents

(1) Type and form  
of material.

(i) Dry uranium-zirconium, uranium-aluminum alloys and compounds with densities not exceeding 1 kg U-235 per liter in the form of plates or sheets. Uranium may be enriched to any degree in the U-235 isotope.

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LICENSEE: United Nuclear Corporation

PAGE 2

LICENSE NO.: SNM-33

AMENDMENT NO.: 71-21

DOCKET NO.: 70-36

5. (b)(1) CONTINUED

(ii) Dry uranium oxide pellets, encapsulated in stainless steel, aluminum or zircaloy rods. Uranium may be enriched to a maximum 5.0 w/o in the U-235 isotope.

(2) Maximum quantity of material per package

Ten (10) kilograms U-235 and the net weight of the contents not to exceed 308 pounds.

(c) Fissile Class

II and III

(1) Minimum number of radiation units to be shown on label for Class II

8.0

(2) Maximum number of packages per shipment for Class III

Ten (10)

6. The cross section of the inner container shall be limited to a maximum 19.6 square inches for the contents specified in 5(b)(i) where the ratio of the weight of U-235 to the weight of U-235 plus zirconium exceeds 0.074 or the ratio of the weight of U-235 to the weight of U-235 plus aluminum exceeds 0.22.

7. This amendment supersedes, in its entirety, Amendment No. 71-20 to SNM-33, dated August 12, 1968.

REFERENCES

Licensee's application dated January 3, 1967, requesting approval to deliver special nuclear material to a carrier for transport in the UNC-2600 package.

Supplements dated January 24, 1967, June 14, and September 11, 1968.

FOR THE ATOMIC ENERGY COMMISSION

Date of Amendment SEP 20 1968

Donald A. Nussbaumer  
Division of Materials Licensing

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UNITED STATES  
ATOMIC ENERGY COMMISSION

SEP 20 1968

LICENSE AMENDMENT  
for  
DELIVERY OF SPECIAL NUCLEAR MATERIAL  
to a  
CARRIER FOR TRANSPORT

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 70, and Part 71, the following amendment to the special nuclear material license identified below is hereby issued, authorizing the licensee to deliver special nuclear material to a carrier for transport, and is subject to the conditions specified in that license and to the conditions specified below.

Licensee	
1. Name: United Nuclear Corporation	3. License No.: <u>SNM-368</u>
2. Address: Post Office Box 1883 365 Winchester Avenue New Haven, Connecticut 06508	Amendment No.: <u>71-21</u>
	4. Docket No.: <u>70-371</u>

CONDITIONS

5. (a) Packaging

(1) Model number

UNC-2600

(2) Description

Inner container is an 11-gage steel box of maximum 25 square inches cross section by 96" long supported in a 22 1/2" ID by 101" long 14-gage steel drum by an insertable cage formed by nine 21 1/2" diameter by 3/8" thick steel plates spaced approximately 12" apart, with a channel formed through the center of the plates by angle iron. Package constructed in accordance with United Nuclear Corporation Drawings E-20354, Sheets 1 through 5.

(b) Contents

(1) Type and form  
of material

(i) Dry uranium-zirconium, uranium-aluminum alloys and compounds with densities not exceeding 1 kg U-235 per liter in the form of plates or sheets. Uranium may be enriched to any degree in the U-235 isotope.

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PAGE 2

LICENSE NO.: SNM-368

AMENDMENT NO.: 71-21

DOCKET NO.: 70-371

5. (b)(1) CONTINUED

(ii) Dry uranium oxide pellets encapsulated in stainless steel, aluminum or zircaloy rods. Uranium may be enriched to a maximum 5.0 w/o in the U-235 isotope.

(2) Maximum quantity of material per package

Ten (10) kilograms U-235 and the net weight of the contents not to exceed 308 pounds.

(c) Fissile Class

II and III

(1) Minimum number of radiation units to be shown on label for Class II

8.0

(2) Maximum number of packages per shipment for Class III

Ten (10)

6. The cross section of the inner container shall be limited to a maximum 19.6 square inches for the contents specified in 5(b)(i) where the ratio of the weight of U-235 to the weight of U-235 plus zirconium exceeds 0.074 or the ratio of the weight of U-235 to the weight of U-235 plus aluminum exceeds 0.22.
7. This amendment supersedes, in its entirety, Amendment No. 71-18 to SNM-368, dated August 12, 1968.

#### REFERENCES

Licensee's application dated January 3, 1967, requesting approval to deliver special nuclear material to a carrier for transport in the UNC-2600 package.

Supplements dated January 24, 1967, June 14, and September 11, 1968.

FOR THE ATOMIC ENERGY COMMISSION

Date of Amendment

SEP 30 1968

Donald A. Nussbaumer  
Division of Materials Licensing

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UNITED STATES  
ATOMIC ENERGY COMMISSION  
SEP 30 1965

LICENSE AMENDMENT  
for  
DELIVERY OF SPECIAL NUCLEAR MATERIAL  
to a  
CARRIER FOR TRANSPORT

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 70, and Part 71, the following amendment to the special nuclear material license identified below is hereby issued, authorizing the licensee to deliver special nuclear material to a carrier for transport, and is subject to the conditions specified in that license and to the conditions specified below.

Licensee	
1. Name: United Nuclear Corporation	3. License No.: <u>SNM-777</u>
2. Address: Post Office Box 1883 365 Winchester Avenue New Haven, Connecticut 06508	Amendment No.: <u>71-16</u>
	4. Docket No.: <u>70-820</u>

CONDITIONS

5. (a) Packaging

(1) Model number

UNC-2600

(2) Description

Inner container is an 11-gage steel box of maximum 25 square inches cross section by 96" long supported in a 22 1/2" ID by 101" long 14-gage steel drum by an insertable cage formed by nine 21 1/2" diameter by 3/8" thick steel plates spaced approximately 12" apart, with a channel formed through the center of the plates by angle iron. Package constructed in accordance with United Nuclear Corporation Drawings E-20354, Sheets 1 through 5.

(b) Contents

(1) Type and form  
of material

(i) Dry uranium-zirconium, uranium-aluminum alloys and compounds with densities not exceeding 1 kg U-235 per liter in the form of plates or sheets. Uranium may be enriched to any degree in the U-235 isotope.

LICENSEE: United Nuclear Corporation

PAGE 2

LICENSE NO.: SNM-777

AMENDMENT NO.: 71-16

DOCKET NO.: 70-820

5. (b)(1) CONTINUED

(ii) Dry uranium oxide pellets encapsulated in stainless steel, aluminum or zircaloy rods. Uranium may be enriched to a maximum 5.0 w/o in the U-235 isotope.

(2) Maximum quantity of material per package

Ten (10) kilograms U-235 and the net weight of the contents not to exceed 308 pounds.

(c) Fissile Class

II and III

(1) Minimum number of radiation units to be shown on label for Class II

8.0

(2) Maximum number of packages per shipment for Class III

Ten (10)

6. The cross section of the inner container shall be limited to a maximum 19.6 square inches for the contents specified in 5(b)(i) where the ratio of the weight of U-235 to the weight of U-235 plus zirconium exceeds 0.074 or the ratio of the weight of U-235 to the weight of U-235 plus aluminum exceeds 0.22.

7. This amendment supersedes, in its entirety, Amendment No. 71-15 to SNM-777, dated August 12, 1968.

#### REFERENCES

Licensee's application dated January 3, 1967, requesting approval to deliver special nuclear material to a carrier for transport in the UNC-2600 package.

Supplements dated January 24, 1967, June 14, and September 11, 1968.

FOR THE ATOMIC ENERGY COMMISSION

Date of Amendment \_\_\_\_\_

SEP 30 1968

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Donald A. Nussbaumer  
Division of Materials Licensing