FORM NRC-7
(7-78)
10 CFR 110

U.S NUCLEAR REGULATORY COMMISSION

TIC

ACV

APPROVED BY GAO
B-180225(R0362)

APPLICATION FOR LICENSE TO EXPORT NUCLEAR MATERIAL AND EQUIPMENT *(See Instructions on Reverse)*

1. APPLICANT'S USE	a. DATE OF APPLICATION	b. APPLICANT'S REFERENCE	2. NRC USE	a. LICENSE NO.	b. DOCKET NO.
	9/5/79	CNEA-3		XSNM01587	11000821

3. APPLICANT'S NAME AND ADDRESS	RIS	4. SUPPLIER'S NAME AND ADDRESS *(Complete if applicant is not supplier of material)*	RIS
a. NAME Edlow International Co. for Comision Nacional de Energia Atomica			
b. STREET ADDRESS 1100 17th Street, N.W. #404		a. NAME U.S. Dept. of Energy	
c. CITY Washington / STATE DC / ZIP CODE 20036		b. STREET ADDRESS Box E	
d. TELEPHONE NUMBER *(Area Code – Number – Extension)* (202)833-8237		c. CITY Oak Ridge / STATE TN / ZIP CODE 37830	

5. FIRST SHIPMENT SCHEDULED	6. FINAL SHIPMENT SCHEDULED	7. APPLICANT'S CONTRACTUAL DELIVERY DATE	8. PROPOSED LICENSE EXPIRATION DATE	9. U.S. DEPARTMENT OF ENERGY CONTRACT NO. *(If Known)*
Dec. 79			Jan. 81	

10. ULTIMATE CONSIGNEE	RIS	11. ULTIMATE END USE *(Include plant or facility name)*	
a. NAME Planta de Fabricacion de Elementos Combustibles de Bajo Enriquecimiento, Centro Atomico Constituyentes, Avenida General Paz y Av. Constituyentes		Fabrication of fuel elements for new RA-6 Research Reactor San Carlos de Bariloche 8400 Rio Negro Argentina	
b. STREET ADDRESS			
c. CITY – STATE – COUNTRY Provincia de Buenos Aires, Argentina		11a. EST. DATE OF FIRST USE	
12. INTERMEDIATE CONSIGNEE	RIS	13. INTERMEDIATE END USE	
a. NAME			
b. STREET ADDRESS			
c. CITY – STATE – COUNTRY		13a. EST. DATE OF FIRST USE	
14. INTERMEDIATE CONSIGNEE	RIS	15. INTERMEDIATE END USE	
a. NAME			
b. STREET ADDRESS			
c. CITY – STATE – COUNTRY		15a. EST. DATE OF FIRST USE	

16. NRC USE	17. DESCRIPTION *(Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)*	18. MAX. ELEMENT WEIGHT	19. MAX. WT. %	20. MAX ISOTOPE WT.	21. UNIT
	uranium as U308	50.125	20.3	10.17	kgs

RECEIVED
U.S. NRC
1979 SEP 7 AM 8 32

22. COUNTRY OF ORIGIN.-SOURCE MATERIAL	23. COUNTRY OF ORIGIN-SNM WHERE ENRICHED OR PRODUCED	24. COUNTRIES WHICH ATTACH SAFEGUARDS *(If Known)*

25. ADDITIONAL INFORMATION *(Use separate sheet if necessary)*

1087 158

This program was agreed to by D.O.E. in May 1978

791003 0236

26. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information in this application is correct to the best of his/her knowledge.

27. AUTHORIZED OFFICIAL	a. SIGNATURE	b. TITLE
	Diane W. Harmon	Vice President

Comisión Nacional de Energía Atómica
DEPENDIENTE DE LA PRESIDENCIA DE LA NACION

CALCULATION OF THE NECESSARY AMOUNT OF U_3O_8 20% - ENRICHED IN U^{235} FOR THE RA-6 ARGENTINE RESEARCH REACTOR.

a) Requirements from the Nuclear Reactors Department:

40 fuel element boxes of 15 plates each.
Total uranium percent: 42%.
Total uranium density: 1.6 gr/cm^3.
Plate core dimensions: (6 x 61.5 x 0.1072) cm.
Enrichment: 20% in U^{235}.

b) Amount of U3O8 necessary to satisfy a):

1. Total U per plate:

1.1. Volume of the plate core

6 x 61.5 x 0.1072 = 39.56 cm^3

1.2. Total U per plate

39.56 cm^3/plate x 1.6 gr/cm^3 = 63.29 gr/plate

2. Total U per fuel element box:

63.29 gr/plate x 15 plates/F.E. = 949.36 gr/F.E.

3. Total uranium required to fabricate 40 fuel elemt. boxes:

3.1. Total U in 40 F.E.

949.36 gr/F.E. x 40 F.E. = 37,974.4. gr.U.

3.2. Additional required considering 10% rejected plates:

37,974.4 + 10% = 41,771.8 gr.U

3.3. Additional 20% for meat fabrication scrap:

41,771.8 + 20% = 50,126.2 gr.U

4. Amount of U_3O_8 to be requested:

50,126.2 gr.U x $\frac{100}{84.77}$ gr.U_3O_8/gr.U = 59,132 gr.U_3O_8

Total U_3O_8 = 59,000 gr.