

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

| | | | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|---------------------|---------------------------|--|
| 1. APPLICANT'S USE | | a. DATE OF APPLICATION 7-15-80 | | b. APPLICANT'S REFERENCE Japan Q80 | | 2. NRC USE | | a. LICENSE NO. XSNM1706 | | b. DOCKET NO. 11002139 | |
| 3. APPLICANT'S NAME AND ADDRESS | | | | | | RIS YUF | | 4. SUPPLIER'S NAME AND ADDRESS <i>(Complete if applicant is not supplier of material)</i> | | | |
| a. NAME REACTOR EXPERIMENTS, INC. | | | | | | a. NAME UNION CARBIDE COPR-OAK RIDGE NAT'L LAB. | | | | | |
| b. STREET ADDRESS 963 TERMIN WAY | | | | | | b. STREET ADDRESS P.O. Box X | | | | | |
| c. CITY SAN CARLOS, | | | | STATE CA | | ZIP CODE 94070 | | c. CITY OAK RIDGE | | | |
| d. TELEPHONE NUMBER <i>(Area Code - Number - Extension)</i> 415/592-3355 | | | | 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. <i>(If Known)</i> | | | |
| Not set yet | | | | 4 months after export approval granted | | Valid 1 year | | | | | |
| 10. ULTIMATE CONSIGNEE | | | | | | 11. ULTIMATE END USE <i>(Include plant or facility name)</i> | | | | | |
| a. NAME Power Reactor & Nuclear Fuel Development Corp | | | | | | For use in experimental fast reactor "JOYO". For determination of the U-235 (n,f) reaction rate. Statement attached. | | | | | |
| b. STREET ADDRESS Osai Engineering Center | | | | | | 11a. EST. DATE OF FIRST USE | | | | | |
| c. CITY - STATE - COUNTRY Ibaraki-ken JAPAN | | | | | | 13. INTERMEDIATE END USE | | | | | |
| 12. INTERMEDIATE CONSIGNEE | | | | | | 15. INTERMEDIATE END USE | | | | | |
| a. NAME | | | | | | 13a. EST. DATE OF FIRST USE | | | | | |
| b. STREET ADDRESS | | | | | | 15a. EST. DATE OF FIRST USE | | | | | |
| c. CITY - STATE - COUNTRY | | | | | | | | | | | |
| 14. INTERMEDIATE CONSIGNEE | | | | | | 15. INTERMEDIATE END USE | | | | | |
| a. NAME | | | | | | | | | | | |
| b. STREET ADDRESS | | | | | | | | | | | |
| c. CITY - STATE - COUNTRY | | | | | | | | | | | |
| 16. NRC USE | | 17. DESCRIPTION <i>(Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)</i> | | | | 18. MAX. ELEMENT WEIGHT | | 19. MAX. WT. % | 20. MAX ISOTOPE WT. | 21. UNIT | |
| | | Uranium (enriched to 99.89% U-235) in the form of UO ₂ powder. Sealed in vanadium capsules and welded shut. Approximately 1 mg/capsule (50 capsules). | | | | 62.5 mg | | 99.89% | 62.4 mg | mg | |
| 22. COUNTRY OF ORIGIN-SOURCE MATERIAL | | | 23. COUNTRY OF ORIGIN-SNM WHERE ENRICHED OR PRODUCED | | | 24. COUNTRIES WHICH ATTACH SAFEGUARDS <i>(If Known)</i> | | | | | |
| | | | USA | | | INTERNAL EXPORT CONTROLS DIVISION JUL 21 1980 | | | | | |
| 25. ADDITIONAL INFORMATION <i>(Use separate sheet if necessary)</i> Please note the end use statement should show the enrichment as 99.89%. 8007290857 | | | | | | | | | | | |
| 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 <i>Dorell Derman</i> | | | | b. TITLE Vice President | | | |

POWER REACTOR AND NUCLEAR FUEL
DEVELOPMENT CORPORATION

Oarai Engineering Center
Oarai -machi
Higashi-Ibaraki-gun
Ibaraki-ken
JAPAN
Telephone :02926-7-4141

U^{235} END USER'S STATEMENT

WE, THE POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT CORPORATION (FIC), WILL USE THE U^{235} IN DOSIMETER SENSORS FOR MATERIAL SURVEILLANCE TESTS IN THE EXPERIMENTAL FAST REACTOR "JOYO".

THESE U^{235} DOSIMETER SENSORS WILL BE CONTAINED IN VANADIUM CAPSULES, AND ASSEMBLED INTO AN IRRADIATION RIG WITH OTHER DOSIMETERS. THE RIG WILL BE INSERTED AT SURVEILLANCE POSITIONS IN THE "JOYO" MK-II CORE, AND IRRADIATED FOR APPROXIMATELY 45 DAYS.

AFTER IRRADIATION, FOR DETERMINATION OF THE $U^{235}(n,f)$ REACTION RATE, WE WILL MEASURE THE GAMMA RAY EMISSION RATES OF U^{235} FROM THE DOSIMETERS WITH A GERMANIUM (Ge) SOLID STATE DETECTOR.

BY REASON STATED ABOVE WE REQUEST 62.5 MG OF URANIUM IN THE FORM OF UO_2 (ENRICHED TO 99.98 PERCENT U-235)

JULY 4, 1980

S. Suzuki



SOUJYU SUZUKI

REACTOR TECHNOLOGY SECTION

EXPERIMENTAL FAST REACTOR DIVISION