NRC FORM 313
(1-84)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-87

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

[X] A. NEW LICENSE
[ ] B. AMENDMENT TO LICENSE NUMBER _____
[ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Multi-Arc, Inc.
261 East Fifth Street
Saint Paul, MN 55101

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

SAME AS NO. 2

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Art Anderson

TELEPHONE NUMBER: 612-227-3629

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND

8610160452 860904
REG3 LIC40
SUB-1491 PDR

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGE

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 2(G)
AMOUNT ENCLOSED $350.00

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE—CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
	Art Anderson	Manager of Research & Development	6/30/86

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS
[ ] <$250K [ ] $1M–3.5M
[ ] $250K–500K [ ] $3.5M–7M
[ ] $500K–750K [ ] $7M–10M
[ ] $750K–1M [ ] >$10M

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*

c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(dollar and/or staff hours)* ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? *(NRC regulations permit it to protect confidential commercial or financial–proprietary–information furnished to the agency in confidence)*
[ ] YES [ ] NO

RECEIVED
JUL 3 1986
REGION III

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED
APP	July-13 III 2G		CONTROL NO. 81638 JUL 3 1986	
AMOUNT RECEIVED	CHECK NUMBER			DATE
~~$200~~ 350	7733			7/17/86

PRIVACY ACT STATEMENT ON THE REVERSE

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY:** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).

2. **PRINCIPAL PURPOSE(S):** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30, 32, 33, 34, 35 and 40 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.

3. **ROUTINE USES:** The information may be (a) provided to State health departments for their information and use; and (b) provided to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.

4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION:** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.

5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555

APPLICATION FOR MATERIAL LICENSE - ATTACHMENT

Question #5:

A.	Element is: Mass number is:	Uranium 238
B.	Form:	Solid metal or its alloys.
C.	Maximum amount to be possessed at any one time.	1000 Kgs

Question #6: Multi-Arc will deposit corrosion barrier coatings on to the material, using a standard physical vapor deposition (vacuum coating) process. The material will be received in a solid form and will be returned to the supplier without modification, except for coating.

Question #7: George F. Wills, Process Development Engineer. Shannon L. Bosak, Operations Manager (See attached resumes).

Question #8: Individuals will be instructed in accordance with the "Instructions to Workers", Paragraph 19.12 of Part 19 - Notices, Instruction and Reports to Workers; Inspections dated 01/31/85, as appropriate.

Question #9: Material, as described in Section 5, will be chemically cleaned, as required, to remove any surface oils or other contamination using standard chemical cleaning equipment. The material will then be placed in fixtures and coated in a vacuum chamber, using Multi-Arc's standard cathodic arc PVD system. Coatings to be applied will include, but not be limited to, titanium nitride and aluminum to inhibit corrosion of the gase material. The material will be received and processed in a solid metal form. There will be no machining, grinding or other modifications to the material at Multi-Arc, except coating.

Question #10: Because of the very low level of radioactivity of the material and the material being received and shipped in a solid metal form unaltered by Multi-Arc except for coating, the requirement for site and personnel monitoring is not anticipated.

Question #11: 100% of all material received by Multi-Arc will be returned to the supplier after coating.

D.0307N

PERSONAL DATA :

NAME: GEORGE F. WILLS

PERMANENT ADDRESS: 421 Van Buren Avenue, Apt. 319, Hopkins, MN 55343

TELEPHONE: 612-938-7206

OBJECTIVE

CAREER INTEREST IN AREAS RELATED TO THE METALLURGICAL ENGINEERING ASPECTS OF DESIGN AND SELECTION OF MATERIALS. ALSO INTEREST IN MECHANICAL METALLURGY AND CASTING.

EDUCATION

NAME OF COLLEGE: MICHIGAN TECHNOLOGICAL UNIVERSITY - HOUGHTON, MICHIGAN 49931

DATES ATTENDED: SEPTEMBER, 1978 TO AUGUST, 1982

DEGREE: B.S.

MAJOR: METALLURGICAL ENGINEER

GRADUATION: AUGUST 1982

WORK EXPERIENCE

IRONWOOD LAUNDRY	IRONWOOD,MICHIGAN	WASHER	8/83 TO PRES.
KEN SUDMAN	IRONWOOD, MICHIGAN	PAINTING	6/83 TO 8/83
S&A CONSTRUCTION	LANTANA, FLORIDA	GEN. CONSTRUCTION	6/81 TO 8/81
IRONWOOD PRODUCTS	IRONWOOD, MICHIGAN	LABOR	6/80 TO 8/80

ACTIVITIES/INTERESTS

MEMBER OF AIME SOCIETY

ACTIVE IN INTRAMURAL SPORTS

ENJOY FISHING, HUNTING, SOFTBALL, TENNIS AND BASKETBALL

D.0308N

SHANNON L. BOSAK

4901 West 110th Street (612) 884-9546 Bloomington, Minnesota 55437

CAREER OBJECTIVE

Placement in a responsible, challenging, and upwardly mobile position within the Electronics and/or Nuclear Power field.

WORK EXPERIENCE

1980-August, 1981: Reactor Plant Group Supervisor, responsible for directing two work centers comprising a total of twelve technicians. This position requires expertise in scheduling workload for best utilization of time, manpower, and equipment. In addition, the position requires the ability to rapidly and accurately evaluate the impact of equipment failure upon plant operations, and make reccomendations for action based upon thorough knowledge of procedural requirements.

Concurrent responsibilities with the above positions include standing watches as reactor operator and reactor technician, with responsibility maintaining and operating on-line and shut down Nuclear Power Plants.

1979-1980: Work Center Supervisor, responsible for the supervision of five electronics technicians.

1978-1979: Electronics Technician, responsible for performing maintenance, repair, and testing of Nuclear Reactor monitoring instrumentation and controls equipment, utilizing various test equipment of an advanced nature.

EDUCATION

Nuclear Power Prototype training school. December, 1977
Nuclear Power School. May, 1977
Electronics Technican Class "A" school. June, 1976
Basic Electricity and Electronics school. December, 1975
Jefferson High School. June, 1975

PERSONAL INFORMATION

Date of Birth: April 27, 1957
Marital Status: Single
Honorable Discharge from the U S Navy: August, 1981
Rank: E5

PERSONAL AND PROFESSIONAL REFERENCES

Upon request.

CONTROL NO. 81638

Commander Carrier Group Four

TAKES GREAT PLEASURE IN PRESENTING

SHANNON LEROY BOSAK

ELECTRONICS TECHNICIAN SECOND CLASS

UNITED STATES NAVY

A Letter of Commendation

IN RECOGNITION

FOR SERVICES AS SET FORTH HEREIN

For outstanding performance of duty in support of Commander Carrier Group FOUR operations while deployed to the Indian Ocean during the period 15 April to 20 December 1980. Assigned as Number Two Reactor Plant Group Supervisor for Reactor Controls Division, Petty Officer Bosak, through tireless personal effort and expert leadership, maintained assigned reactor controls equipment in a high state of readiness. Although the billet of group supervisor is normally assigned to a chief petty officer, he consistently performed his duties at a level far above that normally expected from a man of his experience or seniority. Petty Officer Bosak was responsible for the operation, testing and repair of vital reactor controls equipment associated with Number Two Reactor Plant. Through keen management skills and personal attention, he helped to ensure the almost continuous operation of his assigned reactor plant during the deployment. Petty Officer Bosak also demonstrated his exceptional skills as a technician during maintenance periods and actual casualties thereby significantly reducing the time the equipment was out of service. His positive disposition and cheerful manner helped to maintain a high level of morale in his men. Petty Officer Bosak's skills and judgment reflected great credit upon himself and the United States Naval Service.

R. B. Fuller

R. B. FULLER
Rear Admiral, U. S. Navy

GROUP FOUR

CONTROL NO. 81638