FORM NRC 313 I
(3-80)
10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

See attached instructions for details.

Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.

1. APPLICATION FOR: *(Check and/or complete as appropriate)* 03212

X a. NEW LICENSE

b. AMENDMENT TO LICENSE NUMBER 30-19462

c. RENEWAL OF LICENSE NUMBER 5-03010

2. APPLICANT'S NAME *(Institution, firm, person, etc.)*
Martin Marietta Corporation
TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
(303) 977-1657

3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION
C. D. Moore - Chief, System Safety
TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
(805) 865-6519

4. APPLICANT'S MAILING ADDRESS *(Include Zip Code)* *(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)*
P.O. Box 179
MS 2100 (Legal Dept.)
Denver, CO 80201

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED *(Include Zip Code)*
Vandenberg AFB, CA 93437

(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)

6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL *(See Items 16 and 17 for required training and experience of each individual named below)*

	FULL NAME	TITLE
a.	Bruce E. Cubbison	Field Engineer, Test Operations
b.		
c.		

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

7. RADIATION PROTECTION OFFICER
Jack Dekker

Received stamp: Date 10/16/81 Oct. 16 1 Log By Phorm Orig. To Action Compl. 10/22/81
D.L. Copy to Goode 10/20 ... will ... 10/22
Applicant ... Check No. 110382 Amount/Fee Category $190/3L #110 Type of Fee APPLICATION Date Check Rec'd 10/16/81 Received By Phorm
#80 refund

8. LICENSED MATERIAL

LINE NO.	ELEMENT AND MASS NUMBER (A)	CHEMICAL AND/OR PHYSICAL FORM (B)	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) (C)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME (D)
(1)	Nickel 63 (Attach 1)	Sealed Source	EG&G Electronic Tube, Type 343812	24 units at 40 microcuries each total 960 microcuries
(2)	Carbon 14 (Attach 4)	Sealed Source	EG&G Electronic Tube, Type 343814	75 units at 85 microcuries each total 6375 microcuries
(3)				
(4)				

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DESCRIBE USE OF LICENSED MATERIAL
E

(1) 1) Nickel 63 is used in the manufacturing of the spytron gap switch used on M-X
(2) missile's Flight Termination Ordnance System (FTOS).
(3) 2) Carbon 14 is used in the manufacturing of overvoltage spark gap electron tubes
(4) used on M-X missile Ordnance Initiation Sets (OIS).

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9. STORAGE OF SEALED SOURCES

LINE NO.	A. CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED.	B. NAME OF MANUFACTURER	C. MODEL NUMBER
(1)	Storage will be in approved/secured Ordnance Storage Bunkers	USAF Civil Engineers	N/A
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	A. TYPE OF INSTRUMENT	B. MANUFACTURER'S NAME	C. MODEL NUMBER	D. NUMBER AVAILABLE	E. RADIATION DETECTED (alpha, beta, gamma, neutron)	F. SENSITIVITY RANGE (milliroentgens/hour or counts/minute)
(1)	"Rascal" with HP 210					
	Probe - 1.2-2.0 mg/cm^2	Eberline	PRS-1	1	Beta & Gamma	0-1 million counts per minute
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

Instruments provided and calibrated by U. S. Air Force

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

N/A

12. PERSONNEL MONITORING DEVICES

A. TYPE (Check and/or complete as appropriate.)	B. SUPPLIER (Service Company)	C. EXCHANGE FREQUENCY
☐ (1) FILM BADGE ☐ (2) THERMOLUMINESCENCE DOSIMETER (TLD) ☐ (3) OTHER (Specify): N/A - Exposure level will be less than 25% of the permissible exposure levels per quarter.		☐ MONTHLY ☐ QUARTERLY ☐ OTHER (Specify): N/A

13. FACILITIES AND EQUIPMENT (Check were appropriate and attach annotated sketch(es) and description(s).

☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.

☐ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.

☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.

☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

All unacceptable units will be returned to manufacturer for disposal.

b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE.

1. Damaged or failed units will be returned to Quantic Industries for disposal.
2. Damaged or failed units will be returned to Lockheed Missile and Space Co. Inc. for disposal.

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures *(if needed)*, day-to-day general safety instruction to be followed, etc. If the application is for sealed sources also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.

16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.

    a. Principles and practices of radiation protection.

    b. Radioactivity measurement standardization and monitoring techniques and instruments.

    c. Mathematics and calculations basic to the use and measurement of radioactivity.

    d. Biological effects of radiation.

17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our 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.

a. LICENSE FEE REQUIRED *(See Section 170.31, 10 CFR 170)*	b. CERTIFYING OFFICIAL *(Signature)* Morris McLain
	c. NAME *(Type or print)* Morris McLain
(1) LICENSE FEE CATEGORY: 3E	d. TITLE Assistant Counsel
(2) LICENSE FEE ENCLOSED: $190.00	e. DATE 6 October 1981

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