

MATERIALS LICENSE

Amendment No. 53

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated July 13, 1987,	
1. General Dynamics Corp.		3. License number 06-01781-08 is amended in its entirety to read as follows:	
2. Eastern Point Road Groton, Connecticut 06340		4. Expiration date March 31, 1992	
		5. Docket or Reference No. 030-03772	
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	
A. See Condition 10	A. Sealed sources	A. See Condition 10	
B. Cobalt 60	B. Sealed sources (Advanced Medical Systems Model AMS 3801A)	B. Two sources, not to exceed 1,540 curies per source 3,080 curies total	
C. Cobalt 60	C. Sealed source (Amersham/ Technical Operations Model 571 Source Rod)	C. Not to exceed 15 millicuries per source	
D. Cesium 137	D. Sealed sources (New England Nuclear Model NER-570)	D. Not to exceed 100 microcuries per source	
E. Uranium (Depleted in uranium 235)	E. Depleted uranium metal	E. 2000 kilograms	
9. Authorized use			
A. For use in industrial radiography and source replacements.			
B. For use in Advanced Medical Systems, Model 6145 exposure device for industrial radiography and in Picker Model 3320 A source changers for storage and replacement of sources by Picker Corporation.			
C. For use in Amersham/Technical Operations Model 571 calibrator for instrument calibrations.			
D. For use in the standardization of radiation survey meters.			
E. For use as shielding material in the radiography exposure devices and source changers.			

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

06-01781-08

Docket or Reference number

030-03772

Amendment No. 53

CONDITIONS

10. Sealed Sources, Exposure Devices and Source Changers authoirzed for use are as follows:

Isotope	Manufacturer & Model No. of Source Assemblies	Manufact rer & Model No. of Exposure devices	Manufacturer & Model No. of Source Changers	Maximum Acticity per Source(curies)
Cobalt 60	Amersham/Technical Operations Model A-424-8	Amersham/Technical Operations Model 578	Amersham/Technical Operations Model 416, 488	50
Cobalt 60	Amersham/Technical Operations Model A-424-14	Amersham/Technical Operations Model 680	Amersham/Technical Operations Model 416, 488	50
Cobalt 60	Gamma Industries Model A-8-A	Gamma Industries Model 100A	Gamma Industries Model C-8	50
Cobalt 60	Amersham/Technical Operations Model A-424-19	Amersham/Technical Operations Model 660	Amersham/Technical Operations Model 414, 416, 650	0.070
Cobalt 60	Amersham/Technical Operations Model A-424-14	Amersham/Technical Operations Models 680E, 680E/657	Amersham/Technical Operations Model 416, 488	100
Cobalt 60	Amersham/Technical Operations Model A-424-15	Amersham/Technical Operations Model 684	Amersham/Technical Operations Model 416, 488	10
Iridium 192	Amersham/Technical Operations Model A-424-9	Amersham/Technical Operations Model 660	Amersham/Technical Operations Model 414, 416, 650	100
Iridium 192	Amersham/Technical Operations Model A-58101-8	Amersham/Technical Operations Model 616	NONE	200
Iridium 192	Amersham/Technical Operations Model A-424-9	Amersham/Technical Operations Models 660E, 660E/657	Amersham/Technical Operations Model 414, 416, 650 Gamma Industries Model C-10-T	100

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(10. continued)

CONDITIONS

Isotope	Manufacturer & Model No. of Source Assemblies	Manufacturer & Model No. of Exposure devices	Manufacturer & Model No. of Source Changers	Maximum Activity per Source (curies)
Iridium 192	Gamma Industries Model T-3-T	Amersham/Technical Operations Models 660, 660E, 660E/657	Amersham/Technical Operations Model 414, 416, and 650 Gamma Industries Model C-10-T	100
Iridium 192	Gamma Industries Model TP	Amersham/Technical Operations Model 616	NONE	200

11. Licensed material may be used at Eastern Point Road and Depot Road, Groton, Connecticut and at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
12. Licensed material shall be used by, or under the supervision and in the physical presence of, Franklin H. Davison or individuals who have been trained as specified in application dated March 31, 1980 and letters dated November 17, 1980, October 16, 1981 and March 15, 1982. The licensee shall maintain records of individuals designated as users.
13. A. Notwithstanding the periodic leak test required by Section 34.25(b) of 10 CFR Part 34, such requirement does not apply to radiography sources that are stored and not being used. The sources excepted from this test shall be tested for leakage before use or transfer to another person.
- B. Sealed sources authorized for a use other than radiography shall be tested as radiography sources in accordance with Section 34.25 of 10 CFR Part 34.
14. The licensee is authorized to receive, possess, and use sealed sources of iridium-192 or cobalt-60 where the radioactivity exceeds the maximum amount of radioactivity specified in this license provided:
- A. Such possession does not exceed the quantity per source specified in Item 8 by more than 20% for iridium-192 or 10% for cobalt-60;
- B. Records of the licensee show that no more than the maximum amount of radioactivity per source specified in this license was ordered from the supplier or transferor of the byproduct material; and
- C. The levels of radiation for radiographic exposure devices and storage containers do not exceed those specified in Section 34.21 of 10 CFR Part 34.

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SUPPLEMENTARY SHEET**

License number

06-01781-08

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Amendment No. 53

(Continued)

CONDITIONS

15. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
16. Pursuant to Section 34.51 of 10 CFR Part 34, in reliance on the statements, and representations made in the letter dated July 16, 1987, and notwithstanding the requirements of Section 34.28(b) of 10 CFR Part 34, the licensee is authorized to conduct inspection and maintenance of radiographic exposure devices three months after a source is loaded into the exposure device.
17. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.
 - A. Application dated March 31, 1980
 - B. Letter dated November 17, 1980
 - C. Letter dated August 7, 1981
 - D. Letter dated October 16, 1981
 - E. Letter dated January 7, 1982
 - F. Letter dated March 15, 1982
 - G. Letter dated December 15, 1983
 - H. Letter dated February 18, 1987
 - I. Letter dated July 16, 1987

26 AUG 1987

Date _____

For the U.S. Nuclear Regulatory Commission

Original Signed By:

Jack Davis

By _____

Nuclear Materials Safety and
Safeguards Branch, Region I
King of Prussia, Pennsylvania 19406