



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

*file copy*

MATERIAL LICENSE

VARIAN/CROSSED FIELD AND RECEIVER PROTECTOR PRODUCTS  
150 Sohler Road  
Beverly, MA 01915-5595

License No. 20-02237-03E  
Docket No. 030-04621  
Amendment No. 08

In accordance with letter dated October 16, 1992, License No. 20-02237-03E is amended in its entirety to read as follows:

Pursuant to the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended (Public Law 93-438); 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material;" Section 32.14, 10 CFR Part 32, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material;" application dated April 3, 1991; and letters dated August 14, 1991, August 22, 1991, August 23, 1991, December 16, 1991, and October 16, 1992; a license is hereby issued to Varian/Crossed Field and Receiver Protector Products to distribute electron tubes containing not more than 1 microcurie of cobalt-60, 150 millicuries of hydrogen-3, or 30 microcuries of promethium-147, to persons exempt from licensing pursuant to Section 30.15, 10 CFR Part 30, or equivalent provisions of the regulations of any Agreement State.

This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and other applicable rules, regulations, and orders of the U.S. Nuclear Regulatory Commission now or hereafter in effect and to the following conditions:

1. This license does not authorize possession or use of licensed material.
2. The licensee may distribute only from its facility located at 150 Sohler Road, Beverly, Massachusetts.
3. In accordance with 10 CFR 30.11(a), the licensee is exempt from the labeling requirements in 10 CFR 32.15(d) for identifying the manufacturer on devices manufactured for the United States Government provided devices are labeled as described in letter dated December 16, 1991.

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PDR ADDCK 03004621  
C PDR

*meow*

(continued)

CONDITIONS

4. The licensee shall submit periodic material transfer reports as specified in Section 32.16, 10 CFR Part 32.

This license shall expire on September 30, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

NOV 13 1992

Date

BY:

*original signed by*  
Patricia C. Vacca  
Commercial Section  
Medical, Academic, and Commercial  
Use Safety Branch  
Division of Industrial and  
Medical Nuclear Safety, NMSS  
Washington, D.C. 20555

*11-13-92*  
*PCV*  
*11-13-92*

*MLOD*  
*as to Reg I*

NOV 13 1992

Varian/Crossed Field and  
Receiver Protector Products  
ATTN: Mr. Michael Grabko  
Radiation Safety Officer  
150 Sohler Road  
Beverly, Massachusetts 01915-5595

Dear Mr. Grabko:

Enclosed is Amendment No. 08 amending NRC License No. 20-02237-03E.

Please review the enclosed document carefully and be sure that you understand all the conditions. If there are any errors or questions, please contact me so that appropriate corrections and answers can be provided.

Please be advised that you must conduct your program involving radioactive materials in accordance with the conditions specified in your NRC license, representations made in your license application, and other rules, regulations, and orders of the U.S. Nuclear Regulatory Commission, now or hereafter in effect, to include the following:

1. Operate in accordance with NRC regulations in 10 CFR Part 19, "Notices, Instructions, and Reports to Workers: Inspection and Investigations;" 10 CFR Part 20, "Standards for Protection Against Radiation;" and other applicable regulations.
2. Use radioactive material only for the purpose(s) indicated in your license.
3. Notify NRC in writing of any change in mailing address (no fee is required if the location of radioactive material remains the same).
4. Request and obtain appropriate amendments if you plan to change control or ownership of your organization, change locations of distribution of radioactive material, or make any other changes in your program which are contrary to the license conditions or representations made in your license application and any supplemental correspondence with NRC. A license fee may be charged for the amendments if you are not in a fee-exempt category.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You should receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

NOV 13 1992

6. Request termination of your license if you plan to permanently discontinue activities involving radioactive material, see 10 CFR 30.36.

You will be periodically inspected by NRC. Failure to conduct your program in compliance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action(s) against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions, you may contact me at (301) 504-2611.

Sincerely,

Original signed by:

Torre Taylor  
Commercial Section  
Medical, Academic, and Commercial  
Use Safety Branch  
Division of Industrial and  
Medical Nuclear Safety, NMSS

Enclosure:  
Amendment No. 08

DISTRIBUTION:

License File  
NMSS r/f  
IMAB r/f  
IMNS Central File  
TTaylor  
JEGlenn  
MALamastra  
State Programs  
Region I

OFC	:IMAB:NMSS	:IMAB:NMSS	:	:	:	:	:	:	:
NAME	:TTaylor:cb:MLamastra	:	:	:	:	:	:	:	:
DATE	:11/13/92	:11/13/92	:	:	:	:	:	:	:

OFFICIAL RECORD COPY  
G:Varian.tt

# CONVERSATION RECORD

TIME

1110

DATE

11-13-92

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Mike Grabko

ORGANIZATION (Office, dept., bureau, etc.)

Varian crescent

TELEPHONE NO.

503-922-6000  
Ext. 282

SUBJECT

Lic. Amendment 20-02237-03E

SUMMARY

Verified design, construction etc. Same as in current license. Only difference is use of uracil form.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

Terre Taylor

SIGNATURE

*Terre Taylor*

DATE

11-13-92

ACTION TAKEN

SIGNATURE

TITLE

DATE



varian <sup>VA</sup>

*crossed field & receiver protector products*

October 16, 1992

U.S. Nuclear Regulatory Commission  
Commercial Section  
Material, Academic, and Commercial  
Use Safety Branch  
Washington, DC 20555

Dear Sirs,

Please amend our licence number 20-02237-03E Docket number 04621 as shown on the attached page. I would appreciate anything you could do to expedite this procedure. We are in the process of acquiring technology that requires the use of this material in the electron tubes we manufacture. It is very important that our time to market be kept as short as possible.

Our companion licence number 20-02237-04 to possess is also being amended to reflect this change. The amendment request has been sent to the appropriate section.

Enclosed is our check for the amendment fee of \$370.00. Should you need any further information, clarification, or amplification, please call me at (508) 922-6000 x282.

Sincerely,

*Michael Grabko*

Michael Grabko  
Radiation Safety Officer

Log	1001145
Rem No.	
Check No.	800148
Amount	\$370
Fee Category	12
Type of Fee	Plan
Date Check Rec'd	10/16/92
Date Completed	10/16/92
By:	1001145

REC'D OCT 28 AM 12

REC'D

OCT 23 1992

021455

AMENDMENT TO --  
Licence No. 20-02237-03E  
Docket No. 030-04621

October 16, 1992

To Item 5 add --

Element and Mass Number	Physical and/or Chemical Form	Maximum number of millicuries to be possessed at one time
5. Hydrogen 3	Any	5,000

To Item 6.2 Add

Tritium in the form of tritiated uracil will be used as a source of electrons in receiver protector type electron tubes. The uracil will be injected into the device as an aqueous or alcoholic solution. The water or alcohol will be evaporated by warming the device, in a vented area, to a maximum of 125 degrees centigrade. The device will be evacuated after helium leak check and back filled with a partial pressure of a non radioactive gas. The device will ultimately be sealed using a metal cold flow technique or a sealed glass joint as required for the particular device. In no case will more than 150 millicuries of tritium be contained in any one device.

In order to minimize changes in the activity level per unit volume of uracil solution, the tritiated uracil will be stored in a freezer at 5 degrees centigrade or less when not in use. The tritiated uracil will be applied to the tube in the restricted room in a vented exhaust area to minimize the potential for worker exposure.

All safety controls, quality assurance procedures, weekly surveys, personnel and area monitoring, and device marking will be as described in the pertinent part of the licence.

REC'D

OCT 23 1992

1st due  
12/7/92

(FOR LFMS USE)  
INFORMATION FROM LTS

BETWEEN

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

Program Code: 03251  
Status Code: 0  
Fee Category: 31  
Exp. Date: 19960930  
Fee Comments:  
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A REGION

1 APPLICATION ATTACHED  
Applicant/Licensee: VARIAN/CROSSED FIELD AND RECEIVER  
Received Date: 921023  
Docket No: 3004621  
Control No: 21455  
License No: 20-02237-03E  
Action Type: Amendment

2 FEE ATTACHED \$ 370.00  
Amount:  
Check No.: 500798

3 COMMENTS

Signed M. Moriarty  
Date 10-27-92

B LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ☒ /)

1 Fee Category and Amount: 31 370

2 Correct Fee Paid ☒ Application may be processed for:  
Amendment ☐  
Renewal ☐  
License ☐

3. OTHER \_\_\_\_\_

Signed P. Berger  
Date 11/19/92



R1201021

## LICENSING TRACKING SYSTEM

DATE: 921026  
PAGE: 1

## LTS WORKSHEET

DOCKET NO : 03004621    LICENSE NO : 20-02237-03E    STATUS: 0  
MAIL CONTROL: 021455    RECEIPT DATE : 921029    ACTION TYPE: 4  
DUE DATE : 930121  
FED. GOVT : N    INST. CODE : 02237    LICENSE REGION: 0  
ISSUE DATE: 920914    ORIGINAL DATE: 791001    EXPIRATION DATE: 19960830  
NAME : VARIAN/CROSSED FIELD AND RECEIVER    DECOM FIN ASSUR REQD: N  
SUBM: -  
DEPT/BUREAU: PROTECTOR PRODUCTS    CONT PLAN REQD: N    APPRV: -  
BUILDING : -  
STREET : 150 SOHIER ROAD  
CITY : BEVERLY    STATE: MA    ZIP: 019155595  
CONTACT PERSON: MICHAEL GRABKO    PHONE: 508-922-6000  
PRIMARY PGM CODE : 03251    SECONDARY PGM CODES: -  
INSPECTION REGION: 1    PRIORITY CODE: 5    INSPECTION CATEGORY: E  
RADIATION SAFETY OFFICER: -  
STATES WHERE USE IS AUTHORIZED: 1    0 - ALL LISTED STATES  
1 - SAME AS STATE IN ADDRESS  
2 - ALL STATES  
3 - NON-AGREEMENT STATES  
AUTHORIZED STATES: -    (USE ONLY IF ABOVE IS ZERO)  
REPORTING IDENTIFICATION SYMBOL: -  
APPROVAL FOR: REDISTRIBUTION: N    STORAGE ONLY: N  
TEMPORARY JOB SITES: N    INCINERATION: N  
BURIAL: N  
EXEMPTIONS: (1) SECTION 30.15    (2) -

11/16/92 CB  
MS

## POSSESSION LIMIT INFORMATION

PAGE: 2

MATERIAL TYPE	C060	FORM CODE: SS	AGGREGATE CODE: SS
MODEL NUMBER	1		
DESCRIPTION			
TOTAL QUANTITY	0000001.000000000	UNIT: UCI	
OTHER		# SOURCES: _____	
MATERIAL TYPE	H3	FORM CODE: SS	AGGREGATE CODE: SS
MODEL NUMBER	3		
DESCRIPTION			
TOTAL QUANTITY	0000150.000000000	UNIT: MCI	
OTHER		# SOURCES: _____	
MATERIAL TYPE	KR85	FORM CODE: SS	AGGREGATE CODE: SS
MODEL NUMBER	2		
DESCRIPTION			
TOTAL QUANTITY	0000030.000000000	UNIT: UCI	
OTHER		# SOURCES: _____	
MATERIAL TYPE	PM147	FORM CODE: SS	AGGREGATE CODE: SS
MODEL NUMBER	4		
DESCRIPTION			
TOTAL QUANTITY	0000030.000000000	UNIT: UCI	
OTHER		# SOURCES: _____	
MATERIAL TYPE	_____	FORM CODE: _____	AGGREGATE CODE: _____
MODEL NUMBER	_____		
DESCRIPTION	_____		
TOTAL QUANTITY	_____	UNIT: _____	
OTHER	_____	# SOURCES: _____	
MATERIAL TYPE	_____	FORM CODE: _____	AGGREGATE CODE: _____
MODEL NUMBER	_____		
DESCRIPTION	_____		
TOTAL QUANTITY	_____	UNIT: _____	
OTHER	_____	# SOURCES: _____	
MATERIAL TYPE	_____	FORM CODE: _____	AGGREGATE CODE: _____
MODEL NUMBER	_____		
DESCRIPTION	_____		
TOTAL QUANTITY	_____	UNIT: _____	
OTHER	_____	# SOURCES: _____	