



RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

2018-000323

1

RESPONSE TYPE INTERIM FINAL

REQUESTER:

Cyndi Trembley

DATE:

03/14/2018

DESCRIPTION OF REQUESTED RECORDS:

AEC License No. STB-295, AEC License No. C-316, AEC License No. 31-461-10:
Any and all documents associated with the Atomic Energy Commission licenses noted above issued to Eastman Kodak Company, Hawkeye Plant (1404 & 1407 St. Paul Blvd., Rochester, NY)

PART I. -- INFORMATION RELEASED

You have the right to seek assistance from the NRC's FOIA Public Liaison. Contact information for the NRC's FOIA Public Liaison is available at <https://www.nrc.gov/reading-rm/foia/contact-foia.html>

- Agency records subject to the request are already available on the Public NRC Website, in Public ADAMS or on microfiche in the NRC Public Document Room.
- Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Comments.

PART I.A -- FEES

NO FEES

AMOUNT*

\$563.60

*See Comments for details

- You will be billed by NRC for the amount listed.
- You will receive a refund for the amount listed.
- Fees waived.

- Minimum fee threshold not met.
- Due to our delayed response, you will not be charged fees.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- We did not locate any agency records responsive to your request. *Note:* Agencies may treat three discrete categories of law enforcement and national security records as not subject to the FOIA ("exclusions"), 5 U.S.C. 552(c). This is a standard notification given to all requesters; it should not be taken to mean that any excluded records do, or do not, exist.
- We have withheld certain information pursuant to the FOIA exemptions described, and for the reasons stated, in Part II.
- Because this is an interim response to your request, you may not appeal at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue our final determination.
- You may appeal this final determination within 90 calendar days of the date of this response by sending a letter or e-mail to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal." You have the right to seek dispute resolution services from the NRC's Public Liaison, or the Office of Government Information Services (OGIS). Contact information for OGIS is available at <https://ogis.archives.gov/about-ogis/contact-information.htm>

PART I.C COMMENTS (Use attached Comments continuation page if required)

Thank you for your prepayment in the amount of \$563.60.
Please note: The NRC is releasing a part of the responsive records to your request in their entirety (please see attached). Additional responsive records are already publicly available: ML011090167
Records with a ML Accession Number are publicly available in the NRC's Public Electronic Reading Room at <http://www.nrc.gov/reading-rm.html>. If you need assistance in obtaining these records, please contact the NRC's Public Documents Room (PDR) at 301-415-4737 or 1-800-397-4209, or by Email to PDR.Resource@nrc.gov.

Signature - Freedom of Information Act Officer or Designee

Stephanie A. Blaney

Digitally signed by Stephanie A. Blaney
Date: 2018.03.14 13:49:05 -04'00'

Ltk-107
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EASTMAN KODAK COMPANY

ROCHESTER, NEW YORK 14650

PLEASE ADDRESS REPLY TO
KODAK PARK WORKS

TELEPHONE
AREA CODE 716 GLADSTONE 8-1000

March 21, 1968

United States Atomic Energy Commission
Division of Materials Licensing
Isotopes Branch
Washington, D. C. 20545

Gentlemen:

Enclosed is our application to renew our AEC By-Product Material License No. 31-00461-10. This license permits us to use small 1 mCi. tritiated luminous buttons in our photographic processing laboratories located in non-agreement states.

Should any questions arise concerning this application please do not hesitate to call me (Area Code 716, 458-1000, Ext. 76637).

Very truly yours,



Richard F. Scherberger, Secretary
Radiation Protection Committee

RFS:bwd

Address inquiries to:

Richard F. Scherberger
Eastman Kodak Company
Laboratory of Industrial Medicine
Kodak Park Works - Building 2
Rochester, New York 14650

DUPLICATED
FOR DIV. OF COMPLIANCE

01267



Kodak
TRADEMARK

Form # 7 31-461-10

Form AEC-313 (5-58)	ATOMIC ENERGY COMMISSION APPLICATION FOR BYPRODUCT MATERIAL LICENSE	Form approved Budget Bureau No. 38-RU27.4
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INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30 and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. <i>(Institution, firm, hospital, person, etc.)</i> Eastman Kodak Company Rochester 4, New York	(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. <i>(If different from 1 (a).)</i> Kodak Park Works 1669 Lake Avenue Rochester, New York and Eastman Kodak Processing Laboratories (see original license)
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Any Eastman Kodak Company Department or Plant in the United States	3. PREVIOUS LICENSE NUMBER(S). <i>(If this is an application for renewal of a license, please indicate and give number.)</i> Renewal and Amendment to 31-461-10 Amend. No. 6
4. INDIVIDUAL USER(S). <i>(Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)</i> Kodak Park Radiation Committee William L. Sutton, M.D., Secretary	5. RADIATION PROTECTION OFFICER <i>(Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)</i> William L. Sutton, M.D.

6. (a) BYPRODUCT MATERIAL. <i>(Elements and mass number of each.)</i> A) Hydrogen-3 B) Hydrogen-3 C) Hydrogen-3 D) Hydrogen-3	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. <i>(If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)</i> A) Sealed Sources (U.S. Radium Corp. Model No. LAB-252 B-1) A) 400 sources of 60 millicuries each. Total 24 curies. B) Sealed Sources (New England Nuclear Corp. Model No. NEP-1 or equivalent) B) 3000 sources of 1 millicurie each. Total 3.0 curies. C) Sealed Sources (New England Nuclear Corp. Lucite engravings painted with tritium activated luminous paint. C) 2500 sources not to exceed 100 millicuries each. Total not to exceed 45 curies. D) Sealed Sources (U.S. Radium Corp. Model LAB-252-SB-4) D) 25 sources of 2 millicuries each. Total 0.050 curies.
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7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. *(If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)*

Luminescent light sources in darkrooms used for manufacture of sensitized products and in photographic processing areas.

A/28
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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	See previous applications for Items 8-15.		Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments			Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

10. RADIATION DETECTION INSTRUMENTS. (Use supplemental sheets if necessary.)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE ($\mu\text{r/hr}$)	WINDOW THICKNESS (mg/cm^2)	USE (Monitoring, surveying, measuring)

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

12. FILM BADGES, DOSIMETERS, AND BIOASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No

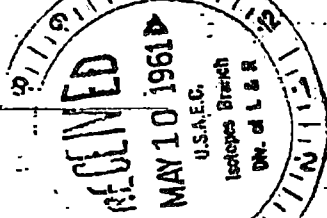
14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable; name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, 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.

Date April 27, 1961



Eestman Kodak Co.
Applicant named in item 1

By: John Mulder
John Mulder, Administrative Assistant
to General Manager, Kodak Park Works
Title of certifying official

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.

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS
TELEPHONE - CONGRESS 6-2500

EASTMAN KODAK COMPANY

ROCHESTER 4, NEW YORK

May 8, 1961

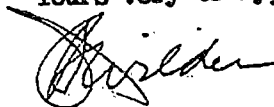
U. S. Atomic Energy Commission
Division of Licensing & Regulations
Washington 25, D. C.

Attention of Mr. R. E. Brinkman

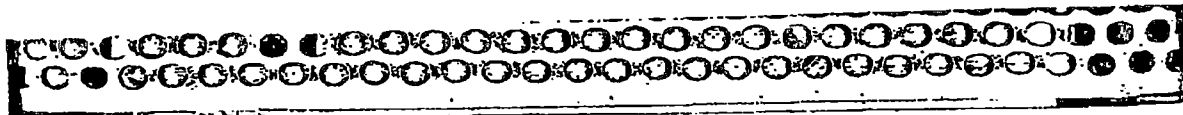
Gentlemen:

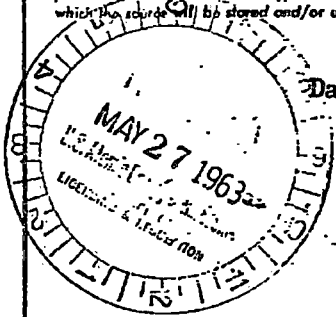
We are attaching for your consideration three copies
of Amendment No. 6 to 31-461-10. If approved, would you please
forward the license to the undersigned.

Yours very truly,



JBWilder:VK
Enc.



Form AEC-313 (5-58)	ATOMIC ENERGY COMMISSION APPLICATION FOR BYPRODUCT MATERIAL LICENSE		Form approved. Budget Bureau No. 38-R027.4.
<p>INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30 and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.</p>			
<p>1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc.)</p> <p>Eastman Kodak Company Rochester 4, New York</p>		<p>(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a).)</p> <p>see item eleven, original license</p> <p>N. B. No material is or will be used in our California Laboratories</p>	
<p>2. DEPARTMENT TO USE BYPRODUCT MATERIAL</p> <p>Eastman Kodak Company Processing Laboratories</p>		<p>3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)</p> <p>Amendment to: 31-461-10</p>	
<p>4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)</p> <p>Personnel designated by: Radiation Protection Committee Eastman Kodak Company W. L. Sutton, M. D., Secretary</p>		<p>5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)</p> <p>R. F. Scherberger</p>	
<p>6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)</p> <p>B. Hydrogen 3</p>	<p>(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)</p> <p>B. Sealed sources (New England Nuclear Corp. Model NEP-1)</p> <p>B. 300 sources of 1 millicurie each. Total 0.3 curies.</p> <p>Note: The major portion of the material covered by this original license is in use in New York State. This amendment is requested so that material used outside of New York will be on a separate license.</p>		
<p>7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)</p> <p>Darkroom markers.</p> <div style="text-align: center;">  <p>DUPLICATED FOR DIV. OF COMPLIANCE</p> <p style="font-size: 2em; font-weight: bold;">A/37</p> </div>			

EASTMAN KODAK COMPANY

ROCHESTER 4, NEW YORK

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS

TELEPHONE
AREA CODE 716 GLADSTONE 8-1000

May 24, 1963

United States Atomic Energy Commission
Division of Licensing and Regulation
Washington 25, D. C.

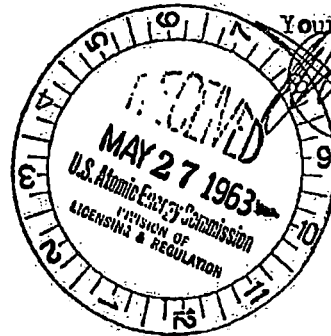
Attention of Mr. R. E. Brinkman

Gentlemen:

We are attaching for your consideration three copies of AEC 313 amendment to 31-461-10 for 300 sources 1 millicurie each hydrogen 3. This request is to cover sealed sources, some of which will not be used in New York state. If approved, would you please forward the license to the undersigned.

Yours very truly,

JEWilder:BD
enc.



5:27

~~1963~~
Kodak



DUPLICATED
FOR DIV. OF INSP.

31-461-10

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EASTMAN KODAK COMPANY

PLEASE ADDRESS REPLY TO
KODAK PARK WORKS

ROCHESTER 4, N.Y.

TELEPHONE
CONGRESS 2500

January 14, 1958

James W. Hitch, Assistant Chief
Byproduct Licensing Isotopes Extension
Division of Licensing and Regulation
United States Atomic Energy Commission
Oakridge, Tennessee

Attention: William O. Miller

Re: IEB:NB (8142)

Subject: Application for extension of license 31-461-10 and amendment No.1
thereof issued August 19, 1957 to Eastman Kodak Company, Kodak Park
Works.

Dear Mr. Miller:

This is in reference to your letter of December 30, 1957 concerning
our application for extension of our license for markers painted with New
England Nuclear Corporation's "Safeglow" paint containing hydrogen 3.

In consideration of this license, please refer to our previous
applications for license No. 31-461-10 and its amendment and letters of April 5,
1957 and October 29, 1957 to Mr. Paul C. Aebersold.

Attention is directed to the fact that our application of 11/27/57
for extension of license 31-461-10 involves three considerations. (1) Extension
of maximum millicuries allowed under license to an additional 8 curies in 600
sources. (2) To include any Eastman Kodak Company department or plant in the
United States or its territories and (3) approval for lucite engravings to be
painted with "Safeglow" - plans and description of which are attached to the
application.

To answer your questions:

1. Please refer to letter of James W. Hitch, Assistant Chief of
your division dated November 19, 1957, item 2, in which he states that "any
object painted with tritium in quantities greater than that stated in section
20.203 shall be labeled with at least the following: standard radiation symbol,
"Caution" or "Danger" - "Radioactive Materials" - "Tritium." All engravings
and all dark room locators (tritium buttons" from New England Nuclear Corporation
to which this application applies will be marked with such a label. A duplicate
of this label is attached.

A/15

Kodak

DUPLICATED
FOR DIV. OF _____

31-461-10

William O. Miller

Page 2

January 14, 1958

2. All dark room locators and painted engravings will be received at a central point at Kodak Park (Finish Film Supplies). There, accurate records will be maintained on intake, storage and department or plant and department to which the locator or engraving is sent. Each department using such locators or engravings will maintain its own records as to intake and location within the department of these objects. The Laboratory of Industrial Medicine will review these practices and the inventories and maintain summaries, thereof on an annual basis.

3. Lucite engravings painted with "Safeglow", described in application of 11/27/57: 95% or more of these will be used in one department in Kodak Park, Rochester, New York. Dark room locators model NEP-1 containing 8 millicuries H_2 ; the majority of these locators will be used in several departments at Kodak Park, the minority of them in other plants. A list of these plants follows:

Kodak Park Works, Rochester, New York

Eastman Kodak Company Processing Laboratories: Chamblee, Atlanta, Georgia; Chicago, Illinois; Dallas, Texas; Fair Lawn, New Jersey; Findlay, Ohio; Flushing, New York; Los Angeles, California; Palo Alto, California; and Kodak Hawaii, Ltd., Hawaii.

4. Storage of appreciable quantities of tritium containing sources (both dark room locators and engravings) will be prohibited in operating departments or plants. The dark room locators stored in Kodak Park central distributing center (Finish Film Supplies) will be kept to a minimum - the maximum amount not to exceed 250 markers (8 millicuries locator or equivalent of 2 curies of tritium). The spare lucite engravings will be stored in the department using the majority of the engravings. A maximum of 100 such engravings will be stored at one time or the equivalent of about 2 curies of tritium. Both of these buildings are film manufacturing buildings in which there are the usual stringent precautions against fire, including automatic sprinkler systems, and in which there is good general ventilation. It is not our intention to install local exhaust ventilation in either area. In both storage areas, the containers will be non-combustible and clearly marked as to their content and the presence of radioactive material. It should be noted that our Fire Department will be aware of the location of these areas and also that our fire control practices are such that no one would enter this area after a fire has started without air supplied respirators.

I hope this information will be adequate to allow you to continue to process our application. I would like to point out that, we feel that tritium offers advantages as a luminous paint activator in that it is intrinsically less hazardous than radium.

DUPLICATED
FOR DIV. OF INSP.

31-461-10

William O. Miller

Page 3

January 14, 1958

On the other hand, its acceptance as a useful material for this purpose by industry and operating departments is discouraged both by its expense as compared to radium and by the possibility that its ease of use may be complicated too much (as compared to radium) by restrictive requirements concerning health protection. We would, therefore, like a decision from you about this application as soon as possible.

Yours very truly,

William L. Sutton, M.D.

William L. Sutton, M. D.
Secretary, Radiation Committee
Eastman Kodak Company
Kodak Park Works

WLS:mb
Enclosure

OK WLM

31-461-10

4586
WLB

EASTMAN KODAK COMPANY

PLEASE ADDRESS REPLY TO
KODAK PARK WORKS

ROCHESTER 4, N.Y.

TELEPHONE
CONGRESS 2500

July 18, 1957

Byproduct Licensing Branch
Isotopes Extension
Division of Civilian Application
Atomic Energy Commission
Oak Ridge, Tennessee

This is an application for extension of licensed amount of Hydrogen 3 (Tritium) to be procured and used by Eastman Kodak Company under license # 31-461-10 issued June 10, 1957. It refers to sealed light sources to be used as darkroom markers to replace those containing radium that are now in use.

The markers we propose to purchase contain less tritium per marker than others currently available. The manufacturer, New England Nuclear Corporation, has not as yet furnished us with information concerning the chemical form, or evidence of the efficiency of sealing. We would welcome AEC investigation of these aspects pertaining to the relative safety of these markers.

Yours very truly,

Wm L. Sutton, M.D.

William L. Sutton, M. D.
Laboratory of Industrial Medicine

WLS:mb

A/S

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31-461-10

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS
TELEPHONE-CONGRESS 2500

EASTMAN KODAK COMPANY

ROCHESTER 4, N.Y.

May 24, 1957

United States Atomic Energy Commission
P. O. Box E
Oakridge, Tennessee

Attention of Isotopes Division

Gentlemen:

We are attaching herewith two signed copies of Form AEC-313
(Application for Byproduct Material License) and Form AEC-313b (Supple-
ment B - Sealed Sources).

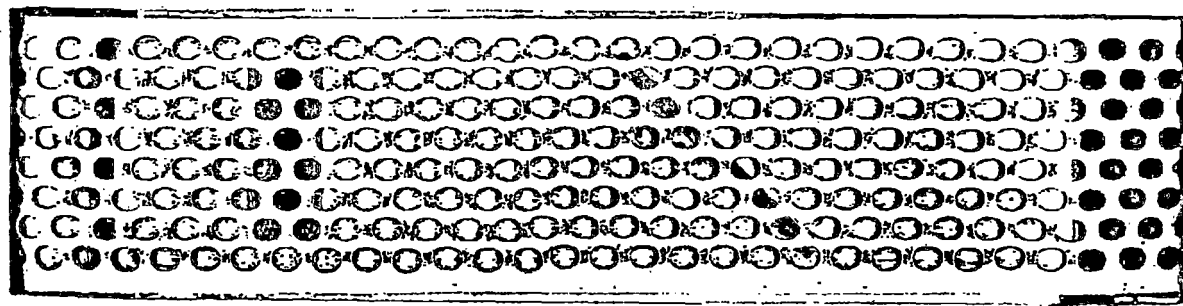
When these forms have been approved, will you please forward
the license marked to the attention of the undersigned.

Yours very truly,

E. W. Guggenheim

EWGuggenheim:bg
Enc.

Kodak



111

312461-10

Form AEC-313b
(9-55)

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
SUPPLEMENT B—SEALED SOURCES

Form approved
Budget Bureau No. 23-B023.2

If application is for byproduct material to be used in or manufactured as a "sealed source" complete this supplement and attach to the application for byproduct material license. Applicant for use of sealed source should complete Section I. An applicant desiring to manufacture a sealed source should complete Section II. If information has been submitted previously and there are no changes in the sealed source and/or device design or other changes in information submitted previously, details requested below may be omitted provided reference is made on line below to the application or other document on which this information appears.

SECTION I—USE (See instructions)

1. IF SEALED SOURCE OR DEVICE CONTAINING SEALED SOURCE IS MANUFACTURED COMMERCIALY, GIVE FOLLOWING INFORMATION:

- A. Manufacturer or supplier of sealed source and/or device United States Radium Corporation
- B. Make and model number of sealed source and/or device U.S.R.C. Model IAB-252B-1
- C. Person who will hold legal title to sealed source Eastman Kodak Company

2. (a) NAME OF PERSON WHO WILL PERFORM NECESSARY PERIODIC LEAKAGE TESTS (6-month intervals for beta-gamma; 3-month period for alpha emitters. See instructions) See attached letter

(b) IF ABOVE PERSON IS NOT THE SUPPLIER, MANUFACTURER, NOR A COMMERCIAL LABORATORY ROUTINELY OFFERING SUCH SERVICES, GIVE BRIEF STATEMENT OF EXPERIENCE OR TRAINING OF SUCH PERSON IN TECHNIQUES TO BE EMPLOYED, A STATEMENT OF LEAK TESTING PROCEDURES INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:

Light sources will be tested by special ionization instrument designed for tritium if this is deemed necessary by the AEC in dealing with sealed and shielded sources of this nature which use tritium as the active agent.

See explanatory letter

3. ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY (if appropriate), SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC., OF THE SOURCE:

Initial radiation survey will be accomplished by U.S.R.C. Laboratory
Periodic inspection of sources will be carried out by the operating departments and by representatives of the Radiation Committee. No repair of sources will be undertaken and the sources will not be opened. An accurate inventory of all sources will be maintained. Disposal will be carried out in accordance with the AEC Standards (10-CFR-20).

SECTION II—MANUFACTURE

4. IF SEALED SOURCE TO BE MANUFACTURED OR FABRICATED BY THE APPLICANT IS DESIGNED TO TRANSMIT ONLY GAMMA RAYS AND CONTAINS IN ELEMENTAL FORM (but not powders) COBALT 60, IRIIDIUM 192, GOLD 198, TANTALUM 182, OR THULIUM 170, GIVE FOLLOWING INFORMATION AND DISREGARD QUESTIONS 5 THROUGH 12 ON THIS SUPPLEMENT:

- (a) Quantity of byproduct material per source and model number
- (b) Leak testing procedure to be employed:
- (c) Attach annotated engineering drawing of source container and holder, if any:
- (d) Describe label to be affixed to source container and/or source holder (or attach copy. See instructions):

No Application

3770

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
SUPPLEMENT B-SEALED SOURCES

ALL SEALED SOURCES OTHER THAN THOSE DEFINED IN ITEM 4

5. QUANTITY OF BYPRODUCT MATERIAL PER SOURCE AND MODEL OR DRAWING NUMBER		
Approximately 60 millicuries of tritium per source. U.S.R.C. Dwg. LAB-252B-1		
6. MEANS BY WHICH BYPRODUCT MATERIAL WILL BE DEPOSITED IN SOURCE CONTAINER:		
Tritium will be vacuum deposited on a titanium-clad stainless steel foil to form a surface film of titanium tritide. This active material will then be placed in intimate contact with a zinc-sulfide phosphor film, and sealed within a plastic capsule. This plastic capsule subsequently crimped into a metal shell.		
7. ATTACH ANNOTATED ENGINEERING DRAWING OF SOURCE CONTAINER AND HOLDER, IF ANY:		
U.S.R.C. drawing LAB-252B-1 attached		
8. TYPE OF SEAL TO BE USED TO PRECLUDE LEAKAGE OF RADIOACTIVITY TO EXTERIOR OF SOURCE:		
Plastic to plastic bonding by resinous adhesive to seal the primary plastic capsule which itself contains tritium in the form of a "bound" source. This capsule subsequently crimped into metal container.		
9. IF SOURCE HOLDER IS TO BE USED WILL CONTAINER BE PERMANENTLY OR SEMIPERMANENTLY MOUNTED THEREIN?		
Sources will normally be used as area marking devices on walls, etc. They will be used in this way in the form shown in LAB-252B-1.		
10. DESCRIBE LABEL TO BE AFFIXED TO CONTAINER AND/OR SOURCE HOLDER (Or attach copy. See instructions):		
The reverse side of outer metal housing will be inscribed with wording "radioactive", isotope symbol, serial number, and sealing date.		
11. EVIDENCE OF STABILITY OF SOURCE CONTAINER MATERIAL TO IRRADIATION FROM BYPRODUCT MATERIAL THEREIN (Omit if such stability is obvious):		
Materials of construction of source have been subjected to long-term testing in U.S.R.C. Laboratory.		
12. LEAK TESTING PROCEDURE TO BE EMPLOYED INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:		
Sources wipe tested externally, with measurement of contamination by means of specially devised ionization chamber.		
DEVICES CONTAINING SEALED SOURCE <i>(Give following information if sealed source is to be mounted in a device)</i>		
13. ATTACH ANNOTATED ENGINEERING DRAWING OF DEVICE INCLUDING MODEL NUMBER AND DETAILS OF MOUNTING OF CONTAINER OR SOURCE HOLDER IN THE DEVICE:		
No Application		
14. DESCRIBE CONSTRUCTION AND OPERATION OF THE POSITIONING MECHANISM FOR BRINGING SOURCE INTO "ON" AND "OFF" POSITIONS:		
15. DESCRIBE CONSTRUCTION AND OPERATION OF READILY VISIBLE INDICATOR OF DEVICE INDICATING "ON" AND "OFF" POSITIONS OF SOURCE:		
16. DESCRIBE DESIGN FEATURES WHICH SERVE TO MINIMIZE RADIATION HAZARD FROM THE DIRECT BEAM AND SECONDARY RADIATION (Including type and amount of shielding as well as limited accessibility inherent in installations where use is contemplated)		
17. DESCRIBE LABEL TO BE AFFIXED TO DEVICE (Or attach copy. See instructions):		
18. RADIATION PROFILE OF A PROTOTYPE DEVICE IS ATTACHED. (Circle your answer):		
		YES NO

3-461-10

INSTRUCTIONS: Complete Items 1 through 19 if this is a new application. If renewal is requested, complete only Items 1 through 11 provided that with respect to the other items there has been no change in the information previously submitted. Mail two copies to: U. S. Atomic Energy Commission, P. O. Box 6, Oak Ridge, Tennessee, Attention: Isotopes Extension, Division of Civilian Application. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. General requirements for issuance of an AEC Byproduct Material License are contained in Title 10, Code of Federal Regulations, Part 30.

1. (a) NAME AND SHIPPING ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc.)
 (1) Eastman Kodak Company
 (3) Rochester 4, New York

(b) ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from shipping address)
 (1) Eastman Kodak Company
 (2) Kodak Park Works
 Rochester 4, New York

2. DEPARTMENT TO USE BYPRODUCT MATERIAL
 Any

3. INDIVIDUAL USER (Name and title of individual(s) who will use or directly supervise use of byproduct material)
 As approved by the Radioisotope Committee of applicant institution.
 (see: attached list for names and experience of Radioisotope Comm. members)

4. RADIOLOGICAL SAFETY OFFICER (Name of person qualified in radiological safety, if other than individual user)
 Dr. Julian H. Webb

5. PREVIOUS LICENSE OR AUTHORIZATION NUMBER (If this is an application for renewal of a license for byproduct material obtained under a prior license or authorization for radioisotope procurement)
 See licenses 31-361- 1 through 7 issued to various departments for other radioisotopes

BYPRODUCT MATERIAL OR IRRADIATION SERVICE DESIRED

6. BYPRODUCT MATERIAL (Element and mass number) Tritium (H ³)	7. CHEMICAL AND/OR PHYSICAL FORM (Or catalog number) Titanium-Tritide	8. MAXIMUM AMOUNT OF RADIOACTIVITY IN MILLICURIES THAT YOU WILL POSSESS AT ANY ONE TIME 400 sealed markers at 60 millicuries each (Total 24 curies)
--	--	--

9. IF IRRADIATION SERVICE IS DESIRED, STATE PERTINENT DETAILS SUCH AS: CHEMICAL COMPOSITION AND WEIGHT IN GRAMS OF TARGET MATERIAL, RADIOACTIVITY, IRRADIATION TIME IN DAYS, AND NEUTRON FLUX
 Not Applicable

STATEMENT OF USE

10. (a) DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If material is for "human use" complete Supplement A in lieu of this item. If material is to be used in or manufactured as a "sealed source" complete Supplement B in addition to this item.)
 Isotope will be used as exciting agent for zinc-sulfide phosphor in sealed light sources, which will be used for dark room locators to mark dangerous areas or machine parts. These markers are for safer replacement of those containing radium that are in current use.

(b) DESCRIBE PROCEDURES WHICH WILL BE OBSERVED TO MINIMIZE HAZARD FROM HANDLING, STORAGE, AND DISPOSAL OF THE BYPRODUCT MATERIAL
 Tritium will be present in each marker as a bonded titanium tritide film on surface of a stainless steel foil. This foil will be effectively and permanently sealed into plastic and metal housing so that possible ingestion hazard will be eliminated. Radiation intensity at external surface of each marker is so low as to be immeasurable, thus eliminating any hazard due to external beta ray exposure.

CERTIFICATE

11. The applicant and any official executing this certificate on behalf of the applicant named in Item 1, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and do solemnly swear (or affirm) that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

State of New York Eastman Kodak Company, Kodak Park Works
 County of Monroe Applicant named in Item 1
 Subscribed and sworn to before me this 24th day of May 1957
 By J. E. Doyle Director of Purchasing
 Title of Certifying Official
 Date May 24, 1957

WARNING
 18 U. S. Code, 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.

STEWART J. LYON
 Notary Public
 State of New York
 County of Monroe

**ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE**

INSTRUCTIONS: Complete Items 12 through 19 if this is a new application. This information may be omitted from subsequent applications provided there is no change in the information previously submitted, and reference is made in Item 5 to the application on which this information appears.

TRAINING AND EXPERIENCE WITH RADIOACTIVITY OF INDIVIDUAL USER NAMED IN ITEM 3

12. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)		FORMAL COURSE (Circle answer)	
			Yes	No	Yes	No
1. Principles and practices of radiological health safety.	NOTE: Radiation detection instruments and specially trained health physics personnel not necessary in view of the non-hazardous nature of the light sources involved. See attached explanations 1) under 12 form AEC 313 2) and under item 2 form AEC 313b		Yes	No	Yes	No
2. Radioactivity measurement standardization and monitoring techniques and instruments			Yes	No	Yes	No
3. Mathematics and calculations basic to the use and measurement of radioactivity.			Yes	No	Yes	No
4. Biological effects of radiation.			Yes	No	Yes	No
5. Actual use of radioisotopes in the types and quantities for which application is being made, or equivalent experience			Yes	No	Yes	No

13. ISOTOPE HANDLING EXPERIENCE

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Not Applicable				

14. If Radiological Safety Officer named in Item 4 is different from individual user named in Item 3, use supplementary sheet to provide equivalent information on "Training and Experience With Radioactivity of Radiological Safety Officer." Supplementary sheet is attached (Circle answer) Yes No

PHYSICAL FACILITIES, EQUIPMENT, AND RADIATION INSTRUMENTATION

15. RADIATION DETECTION INSTRUMENTS (Use separate sheet if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
See attached letter (item 12) and letter attached to form AEC 313b					

16. FILM BADGES, DOSIMETERS, AND OTHER PERSONNEL MONITORING DEVICES INCLUDING BIO-ASSAY PROCEDURES

Not applicable to this license

17. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE (For film badges specify method of calibration and processing, or name supplier)

Not applicable to this license

18. (a) DESCRIBE BRIEFLY REMOTE HANDLING EQUIPMENT, STORAGE CONTAINERS, SHIELDING, AND LABORATORY FACILITIES (Working areas, fume hoods, etc.)

Not applicable to this license

(b) SKETCHES OF SUCH FACILITIES ARE ATTACHED (Circle answer) Yes No

19. DESCRIBE BRIEFLY RADIATION SURVEYING PROCEDURES AND METHODS OF DISPOSING OF RADIOACTIVE WASTES

Routine area surveys are made at least once a year of all areas (oftener as demand necessary) with suitable monitoring instruments and film. All radioactive materials are disposed of via supplier or U of R AEC project or in accordance with AEC regulations.

31-461-10

FORM AEC 313

Item 3 Radioisotope Committee

The Radiation Committee of Eastman Kodak Company, Kodak Park Works consists of Dr. David W. Fassett, Dr. E. K. Carver, Dr. Julian H. Webb, Mr. James Lees and Dr. William L. Sutton. Experience and training of committee members:

D. W. Fassett: A. B. 1933, M.D. 1940 New York University, Internship and Fellowship--Department of Medicine, New York University 1941-45.

Medical training included a one year series of lectures on the biological effects of x-ray radiation and radium therapy including lectures by Dr. Harrison Martland on specific actions of radium with reference to production of bone tumors and included lectures on x-ray physics and the physical chemical properties of radium. Practical training was given in x-ray and radium therapy. Since 1948 has attended various lectures on the biological effects of radiation at the Atomic Energy Project of the University of Rochester. Since 1949 has had responsibility for all medical problems connected with industrial hygiene and toxicology for Eastman Kodak Company including those from physical agents such as ionizing radiation. He has been a member of the Kodak Park Radiation Committee since its origin in 1950. During this time Dr. Fassett had frequent personal experience with carrying out and interpreting monitoring studies for many types of radiation including industrial and medical x-rays, beta ray gauges, x-ray diffraction equipment and sealed sources containing radium and cobalt 60 as well as monitoring for safety in use of tracer quantities of isotopes.

E. K. Carver: A.B. 1914, Ph.D. 1917 in physical chemistry, National Research Fellow 1919-22 in physical chemistry, instructor in physical chemistry University of Illinois 1922-24, research in physical chemistry Eastman Kodak Research Laboratory 1924-28, superintendent of Manufacturing Experiments 1928-47 Eastman Kodak Company, technical assistant to the General Manager of Kodak Park Eastman Kodak Company 1947 to present.

Dr. Carver was a consultant to the Atomic Energy Commission Manhattan District 1944 on coating methods. He has been in charge of protection of product against radioactive fall out in Eastman Kodak Company from 1950 to the present time. He is chairman of the National Association of Photographic Manufacturer's Committee on Radioactivity (from 1951 to the present). Dr. Carver has been a member of the Radiation Committee of Kodak Park since its origin in 1950 and in this capacity has reviewed all uses of radioactive material and radiation producing equipment at Kodak Park during this period.

Julian H. Webb: Ph.D. Wisconsin University 1929 in physics.

Dr. Webb worked for two years on the Manhattan Project 1943-45 at the University of California Berkeley, California and at Oak Ridge, Tennessee. While on the Manhattan Project one of his main responsibilities was radiation hazards. Considerable knowledge was gained in the field of radiation physics and means for its detection at that time. From 1945 to the present Dr. Webb

has had supervisory and investigative responsibilities in physics in the Research Laboratory at the Eastman Kodak Company. In this regard his experience has included measurements of radiations from radium, x-ray machines, artificial radioisotopes etc. All common types of detection instruments including Geiger counters, ionization meters, photographic monitoring films, alpha survey meters etc., have been used. Since 1950 he has been a member of Kodak Park Radiation Committee and has carried out the functions of that committee as detailed below.

James Lees: Graduate from Rochester Institute of Technology in electrical engineering. He has been employed in Manufacturing Experiments Division, Eastman Kodak Company as developmental engineer working on controls and on electronic instruments. A great deal of his time has been spent on devising tests and instruments connected with the control, the effect of fall out particles on Kodak raw materials and products. This work has included the institution of a nation wide monitor system and necessarily involves the knowledge of low level radiation measurements. He has been a member of the Kodak Park Radiation Committee since its origin in 1950.

William L. Sutton: M.D. Stanford University School of Medicine 1953, M.Sc. Industrial Medicine 1955 University of Rochester. Atomic Energy Commission Fellow in industrial medicine University of Rochester 1954-55. This year of training included didactic education in nuclear physics and radiation biology and both didactic and practical training in health physics. Residency in industrial medicine at Eastman Kodak Company 1955-56.

Since 1956 Dr. Sutton has been a member and secretary of the Kodak Park Radiation Committee. It has been his responsibility to maintain day to day contact with radiation protection procedures in Eastman Kodak Company and to maintain adequate records of these activities.

Functions of the Radiation Committee

The Radiation Committee shares with the Laboratory of Industrial Medicine responsibility for radiation protection. The Radiation Committee has been in operation since 1950. All proposed purchases of radioisotopes and radiation producing equipment must be approved by the Radiation Committee members prior to ordering through the Purchasing Division. On receipt of approved purchases the materials or equipment are examined by members of the Radiation Committee or its representatives for contamination and/or adequacy of safety devices. Inspection and monitoring is carried out at the time of installation and reported to the Radiation Committee. The Committee receives reports concerning periodic area, equipment and personnel monitoring surveys and maintains records of all such results. Before disposal of any equipment or materials the Radiation Committee must be notified and must approve. The records of these transactions are also maintained by the Laboratory of Industrial Medicine for the Kodak Park Radiation Committee. Radiation Committee is also responsible for seeing that the regulations stated in the New York State Industrial Code Rule #38 Radiation Protection are complied with.

Procedures for Procurement of Byproduct Material

Proposed purchases of byproduct material must be approved by the Radiation Committee which then assists (if approval is forthcoming) the department in preparing application forms AEC 313, and 313b. In the past it has been out practice to list the department heads as individual users on application forms. Therefore, the byproduct materials individually licensed are used only in the departments having license for use and possession of the material. Radiation Committee maintains a complete inventory of the use and monitoring data and copies of the AEC Licenses in its files. In those departments using byproduct materials departmental radiation safety supervisors are appointed and supervised by the designated radiological safety officer and by the members of the Radiation Committee. For the purposes of this application the Radiation Committee is applying as the individual user for a license to possess the stated quantity of tritium containing sealed markers. The committee will supervise storage procedures, distribution, use, safety procedures and disposal of these markers and will maintain an accurate inventory at all times.

Radiation Safety Practices

Assisting the Radiation Committee in health physics and instrumentation are Mr. H. M. Cleare and Mr. John Castle. Mr. Cleare is a research physicist in the Radiographic Department, Physics Division, Research Laboratory, Eastman Kodak Company doing research in the field of industrial medical radiography. Since 1951 his skills have been employed in personnel and area monitoring services for medical and industrial x-ray installations and for the use of radio-isotopes. He is designated as a radiation safety officer for Eastman Kodak Company with the New York State Labor Department. Mr. Cleare also provides film badge monitoring service for Eastman Kodak Company.

Mr. John Castle is a research physicist, Research Laboratories, Eastman Kodak Company since 1938. In addition to research in various physical problems applied to development and production of photographic materials he has been engaged in evaluation and development of nuclear track emulsions including exposure of the emulsions to sources of alpha particles, beta rays, neutrons and mesons and extensive studies of the physical properties of radioactive fall out particles as to half life and effect on photographic material etc. For the past seven years he has assisted in monitoring radiation installations in Kodak Park. This has included the use of beta survey meters, ionization chambers, photographic monitoring and periodic wipe tests on instruments containing radioactive materials.

Overall consultation on radiation protection is provided by Dr. James H. Sterner, M.D. Medical Director, Eastman Kodak Company. Dr. Sterner is chief consultant in industrial health at the U. S. Atomic Energy Commission Washington, D. C. 1948 to present time. He is a member of the main committee of the National Radiation Protection Committee 1954 to present. He was Medical Director of Clinton Engineer Works, Tennessee Eastman Corporation (Manhattan Project) 1943-45. A member of the radiological safety section and medical legal board operation crossroads (Bikini) 1956. Member of the interim Medical

Advisory Board U. S. Atomic Energy Commission 1945-47 and a member of the Radiation Research Society 1952 to present.

Biological procedures involving determination of body deposition of radioisotopes are performed on a consultation basis by the laboratories at the Atomic Energy Commission Project, University of Rochester.

The Radiation Committee at Kodak Park has adopted as a basic philosophy for its health safety procedures the consideration that any unnecessary radiation exposure is too much. In 1950 the Radiation Committee adopted as a basic radiation protection figure the maximum permissible whole body exposure of 0.03 r (30 mr) per week. This is 1/10 of the standard recommended by the National Bureau of Standards and of those detailed in the Federal Register, Title 10, Part 20. Area inspection, personnel monitoring and area surveys are carried out on all facilities and installations (no matter how good the previous experience) at least once a year and are reported to the Radiation Committee. Accurate lists of names of personnel potentially exposed to ionizing radiation are maintained. The health practices in Kodak Park conform to the recommendations given in the National Bureau of Standards Handbooks on radiation protection and to the requirements of New York State Industrial Code Rule #38 as well as those detailed in the Federal Register, Tuesday, January 9, 1957 Title 10, Part 20.

Radiation Instrumentation

Radiation survey instruments available at Kodak Park are as follows:

1. Two nuclear Chicago Model 2611 Geiger counters with both model D-50 Geiger probe and thin end-window probes.
2. Jordan AGD-10-SR portable ionization chamber rate meter for beta and gamma survey.
3. One Landsverk electrometer.
4. One Victoreen "R" meter for x-ray measurement.
5. One Victoreen alpha survey meter model 356.

For laboratory measurements there are:

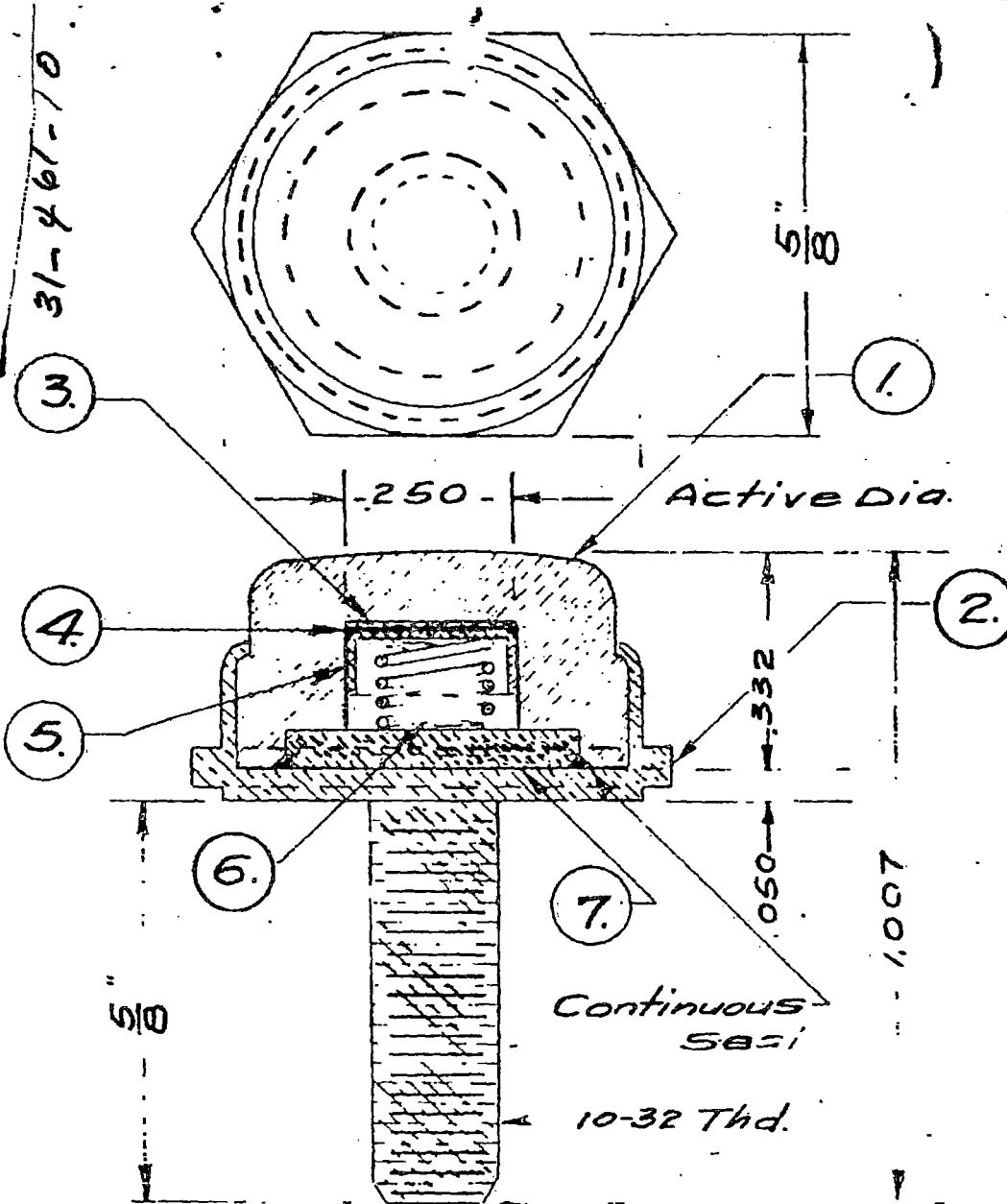
1. For beta-gamma: A laboratory counter utilizing variable end window Geiger tubes manufactured by the Victoreen Company with end windows of thicknesses down to 2.5 mg/cm² connected to a decade scaler built at the University of Rochester Atomic Energy Commission Project.
2. For alpha counting: A laboratory instrument utilizing a shielded scintillation counter with sensitive phosphor on lucite plates and appropriate photo multiplier tubes connected to a Nuclear Instrument and Chemical Corporation model 162 scaler.
3. For laboratory measurements of isotopes with soft beta emission in the laboratory: A gas flow proportional counter connected to a suitable scaler.

31-461-10

FORM AEC 313b

The Radiation Committee does not plan to carry out twice yearly leak tests on all tritium containing light sources that will be in use in Kodak Park. It is believed by the Committee that the hazard from these sources is small. The main purpose for requesting license for this use of tritium is to replace radium containing light sources which in all respects are more hazardous than those containing tritium. It is believed that such periodic testing of all sources would be impractical in our use situation and such a requirement might prevent acceptance of these safer substitutes for radium markers.

31-467-10



TITRITIUM FOIL
 LIGHT SOURCE
 UNITED STATES RADIUM CORP.
 BLOOMSBURG, PA.

D'W'N BY	APPR'D	DATE	11-5
CR'D BY	SCALE	4X	DWG NO. 2

MATERIAL	PROJ ENGR
MANUFACTURING	MACH SHOP
IN V'LING	14H
STANDARD TOLERANCES	

LEGEND :

1. Plexiglas Shell.
2. Housing. Brass.
3. .010 Plastic., Phosphor Coated on bottom.
4. Tritium Foil.
5. Aluminum Cup.
6. Compression Spring.
7. Plexiglas Back Plate

NOTE:
 Plexiglas Shell Detail (Dwg. LAB. 252A.)
 Brass Housing Detail (Dwg. LAB. 252B.)

U.S.R.C. Code. I-906.

THIS DRAWING IS FURNISHED FOR INFORMATION ONLY AND IS NOT TO BE USED FOR MANUFACTURING PURPOSES

A

44-19
1

EASTMAN KODAK COMPANY

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS

ROCHESTER, NEW YORK 14650

TELEPHONE
AREA CODE 716 GLADSTONE 8-1000

March 23, 1966

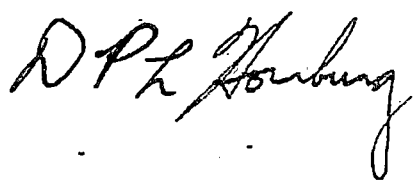
U. S. Atomic Energy Commission
Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

Gentlemen:

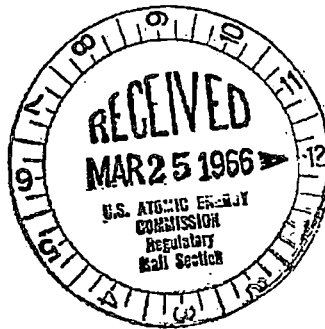
We are attaching for your consideration three copies of Form AEC-313 "Application for By Product Material License" for the renewal of License No. 31-461-10 to cover 300 sources of 1 millicurie each of Hydrogen-3.

If approved, will you please forward renewal license to the undersigned.

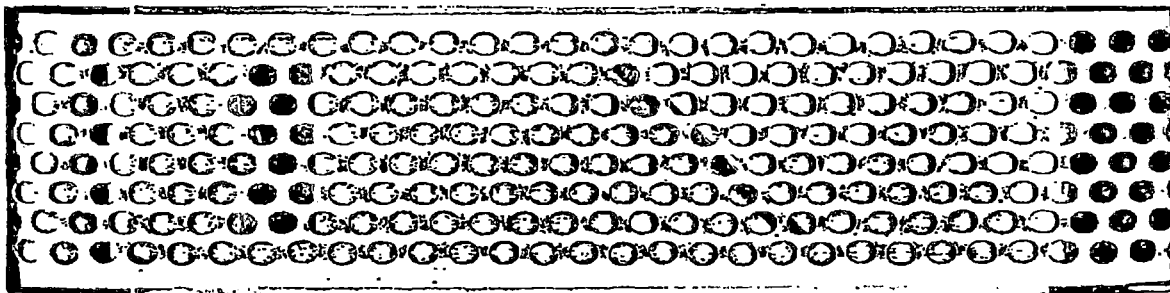
Yours very truly,



DPLHornburg:dp
Enc.



Kodak
TRADEMARK



A143

IN REPLY REFER TO:
IEB:NB (LIC 31-461-10)

Oak Ridge, Tennessee
June 10, 1957

Mr. E. W. Guggenheim
Purchasing Division
Kodak Park Works
Eastman Kodak Company
Rochester 4, New York

Subject: LICENSE NO. 31-461-10

Dear Mr. Guggenheim:

Enclosed is License No. 31-461-10 which provides for 400 tritium containing light markers for use in the Eastman Kodak Company.

We are enclosing a reprint entitled "Tritium Protection" which deals with the potential hazards of tritium should this material be released into the air. We hope you will find it of interest.

Very truly yours,

for: Cecil R. Buchanan, Assistant Chief
Byproduct Licensing Branch
Isotopes Extension
Division of Civilian Application

Encls.:

1. Form AEC-374
2. Tritium Protection
3. Application forms w/instructions and regulations

OFFICE ▶	Isotopes <i>MB</i>	Isotopes			
SURNAME ▶	Bassie <i>MB</i>	<i>MB</i>			
DATE ▶	6-10-57	6-10-57			

A13

2:10
REB

EASTMAN KODAK COMPANY

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS

ROCHESTER 4, NEW YORK

TELEPHONE
AREA CODE 716 GLADSTONE 8-1000

April 28, 1964

U. S. Atomic Energy Commission
Isotopes Branch
Division of Licensing and Regulation
Washington 25, D.C.

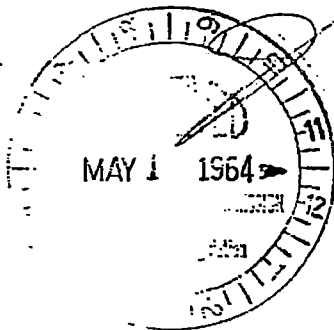
Gentlemen:

With our letter of March 25, 1964, we sent our
Application for By Product Material License, Form AEC 313 for Hydro-
gen-3.

Should we expect to receive approval in the near
future?

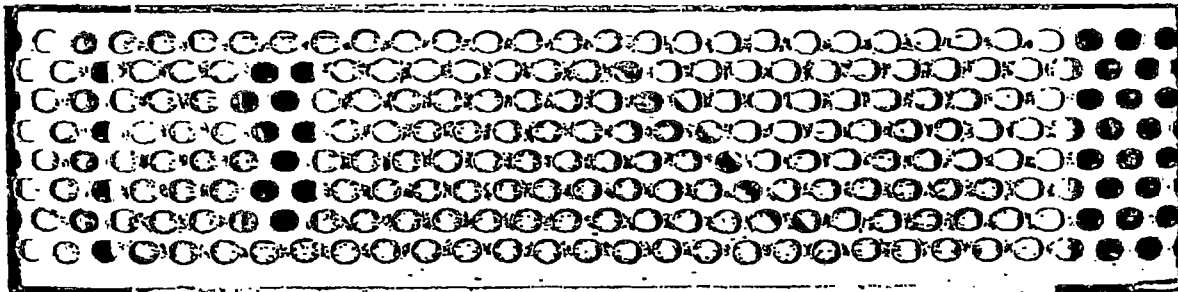
Very truly yours,

JEHusted:SMA



*Marked line 4/28/64
31-461-10
file^R*

Kodak



A141

2 copies - 25

EASTMAN KODAK COMPANY

ROCHESTER 4, NEW YORK

June 14, 1961

TELEPHONE
GLADSTONE 8-1000

PLEASE ADDRESS REPLY TO
KODAK PARK WORKS

United States Atomic Energy Commission
Washington 25
D.C.

Attention: Isotopes Branch, Division of Licensing and Regulation

Gentlemen:

We have just received the June 7, 1961, renewal of our AEC License No. 31-461-10, Amendment No. 7 (F63).

Item No. 8C on this license states "2,500 sources of 100 millicuries each. Total 45 curies."

The above entry is in error. If you will refer to our April 27, 1961, application, you will see Item 8C to be stated "2,500 sources, not to exceed 100 mc. each. Total not to exceed 45 curies."

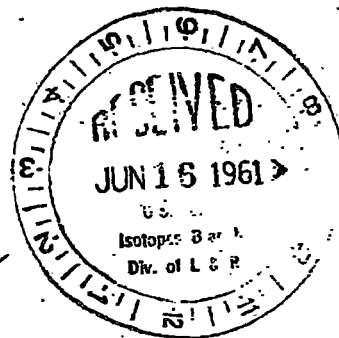
We would appreciate your co-operation in making this correction in our License No. 31-461-10. Please reply directly to the undersigned.

Very truly yours,

Richard F. Scherberger
Laboratory of Industrial Medicine

RFS:jw

Please reply to:
Laboratory of Industrial Medicine
Eastman Kodak Company
Kodak Park Works - Building 2
Rochester 4, New York



A/32

35275

Kodak

6
per Kevin
RSC Cleveland
ad

NOV 24 1959

DLA:SP

Eastman Kodak Company
Rochester, New York

Attention: Assistant to General Manager

Gentlemen:

This refers to the inspection conducted on July 29, 1959 of your activities authorized under AEC Byproduct Material License No. 31-441-12.

It appears that certain of your activities were not conducted in full compliance with a condition of your license, in that the individual locite engravings painted with tritium-activated luminous paint contained up to 100 milligrams of Hydrogen 3 rather than 20 milligrams each. This constitutes a violation of license condition No. 22, "Maximum amount of radioactivity."

Pursuant to the provisions of Section 2.391(a), "Notice of violation," of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, you are requested to notify this office, within thirty days of your receipt of this notice, of the steps taken or to be instituted to achieve correction of the alleged violations, and the date when such correction has been or will be achieved.

If you wish, you may submit an application requesting that your license be amended authorizing the possession and use of locite engravings containing up to 100 milligrams of Hydrogen 3 each. Form AEC-313 are enclosed for this purpose.

Very truly yours,

cc: Divn. of Inspection, Wash.
Divn. of Inspection, NYOO
Public Document Room

James A. Kavan, Chief
Isotope Branch
Division of Licensing and Regulation

- Enclosures:
- 1. 10 CPA 2
 - 2. Form AEC-313

REGISTERED MAIL
RECEIVED
NOV 25 1959

RECEIVED
DLA:SP
DLR:EB
DLR:EB
DLR:EB

11-20-59

ITEM # 8

B/Y

PLEASE ADDRESS REPLY TO
PURCHASING DIVISION
KODAK PARK WORKS
TELEPHONE-CONGRESS 6-2500

EASTMAN KODAK COMPANY
ROCHESTER 4, N.Y.

July 23, 1957

Byproduct Licensing Branch
Isotopes Extension
Division of Civilian Application
Atomic Energy Commission
Oak Ridge, Tennessee

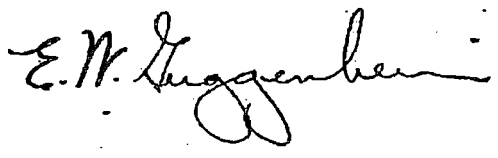
31-461-10

Gentlemen:

We are attaching herewith two signed copies of Form AEC-313 (Application for Byproduct Material License), Form AEC-313b (Supplement B-Sealed Sources) and an explanatory letter dated July 18, 1957 signed by our Dr. W. I. Sutton.

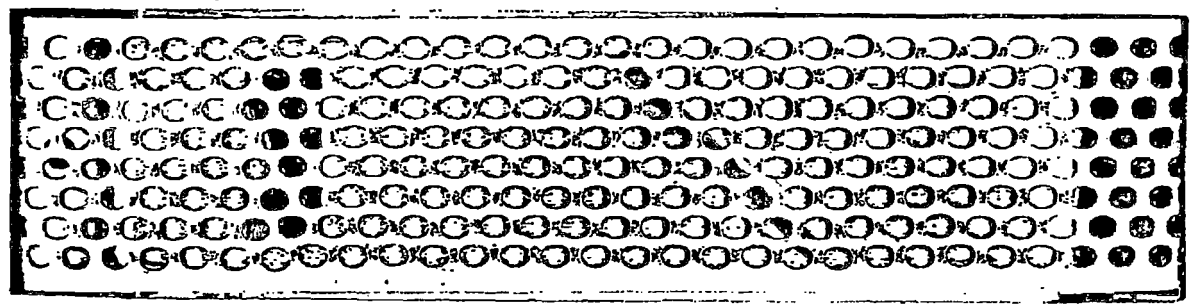
When these forms have been approved, will you please forward the license marked to the attention of the undersigned.

Yours very truly,



EWGuggenheim:bg

Kodak



A17

**U. S. ATOMIC ENERGY COMMISSION
PRODUCT MATERIAL LICENSE**

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose (s) and at the place (s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		
1. Name	Eastman Kodak Company Kodak Park Works	3. License number 31-461-10
2. Address	Rochester, New York	4. Expiration date June 30, 1959
		5. Reference No.
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
Hydrogen 3	U. S. Radium Corporation Sealed Sources Model No. LAB-252B-1	24 curies - 400 sources of 60 millicuries each

9. Authorized use

Dark room locators to mark dangerous areas or machine parts.

CONDITIONS

- 10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
- 11. Byproduct material to be used by, or under the supervision of, **Dr. Julian H. Webb, Radiological Safety Officer.**
- 12. Byproduct material licensed as sealed sources shall not be opened.
- 13. Total amount of Hydrogen 3 (tritium) procured under this license shall not exceed **24 curies.**

Amendment # 1 9-19-57 JH
Amendment # 2 1-20-58 MCB
Am # 4 6-6-59 WSC

5/22/58/wm

For the U. S. Atomic Energy Commission

Date **June 10, 1957**

by **6/11/57**

PCA/DM
 Director, Isotopes Extension
 Division of Civilian Application
 Oak Ridge, Tennessee

B.P./MB

MA/2

31-461-10

Oak Ridge, Tennessee
July 31, 1957

ISB:LG (6536)

Dr. Edward Shapiro
New England Nuclear Corporation
575 Albany Street
Boston 19, Massachusetts

Subject: LIGHT SOURCES FOR EASTMAN KODAK COMPANY

Dear Dr. Shapiro:

An application has recently been received from Eastman Kodak Company, Rochester, New York, for tritium light sources manufactured by New England Nuclear Corporation.

Although they included a sketch of the source with their application, we should like to receive more complete details of its construction prior to completing our review of their application. In this regard, we are particularly interested in the chemical and physical form of the tritium, and the possible results of area and personnel contamination should a source be broken. We are also interested in receiving a sketch of the labeling which will be placed on these sources, and a copy of the instruction sheet which will be enclosed. Also, we are interested in knowing whether this is a custom designed source for Eastman Kodak Company only, or whether it may be later distributed to other customers. In the latter case, it is highly desirable that a model number be assigned to this source design. Even in the former case, such procedure would be of assistance in our licensing procedures.

Very truly yours,

for James W. Hitch, Assistant Chief
Byproduct Licensing
Isotopes Extension
Division of Civilian Application

Gintz/ig
Isotopes
7-31-57

A/8

H. L. Price, Director
Division of Licensing and Regulation

JUL 16 1959

[Handwritten signature]
MSC

Marvin M. Mann, Assistant Director for Compliance
Division of Inspection

Signed
by
M. M. Mann

EASTMAN KODAK COMPANY, ROCHESTER, NEW YORK, LICENSE NO. 31-461-10,
10 CFR 30 - LOSS OF TRITIUM LUMINOUS MARKERS

SYMBOL: IRS:EGO

Attached is copy of a memorandum from NY Inspection Division dated July 2, 1959, relative to the loss by subject company of luminous markers containing tritium.

Please note the corrective action which reportedly will be taken by licensee to prevent further losses of this nature. The NY Inspection Division has scheduled a routine inspection for the end of July 1959 at which time this matter will be reviewed. Any significant findings resulting from that inspection will be transmitted to you.

Enclosure:

Copy memo fm R. W. Kirkman, NY, to
M. M. Mann dtd 7/2/59

CC: C. F. Eason, GC, w/encl.
R. W. Kirkman, NY, w/o encl.

RECEIVED

KYOO INSPECTION DIVISION

IRS

INS

EGOUTTEN:sd
7/15/59

MEHANN

ITEM #

15

B/15

DUPLICATE
FOR DIV. OF INCP.

31-461-10

IEB:NM (3142)

Oak Ridge, Tennessee
December 30, 1957

Dr. William L. Sutton
Eastman Kodak Company
Kodak Park Works
Rochester, New York

Subject: APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Dear Dr. Sutton:

Reference is made to your application for luminous markers painted with New England Nuclear Corporation "Safeglow" paint.

In order to continue our review of your application we shall need the following additional information:

1. A facsimile of the label which will be placed on each sign. The label should include the radiation symbol and at least the following words: "Caution - Radioactive Material - Do Not Open", and the name of the manufacturer.
2. The manner in which you will hold control over the devices. You should describe the kind of records you will keep to indicate the location of each marker.
3. A list of each plant and its location where you desire to use these markers.
4. The precautions which will be taken for storage of large quantities of the markers. This should include the type of ventilation available in case of fire, which might release large amounts of tritium into the air.

Upon receipt of this information we shall continue our review of your application.

Very truly yours,

James W. Hitch, Assistant Chief

Byproduct Licensing
Isotopes Extension
Division of Licensing and Regulation

OFFICE	Isotopes	Isotopes		
SURNAME	Bassint	WUM		
DATE	12-30-57	12-30-57		

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

Page 1 of 1 Pages

This Copy is For Your Files

Supplementary Sheet

License Number 31-00461-10
(D68)

Amendment No. 13

Eastman Kodak Company
Rochester, New York
14650

Attention: Dr. W. L. Sutton

In accordance with application dated March 18, 1966, License No. 31-00461-10 is amended as follows:

To extend the expiration date (Item 4) from April 30, 1966 to April 30, 1968.

To change the symbol below the license number from (D66) to (D68).

Date WEH APR 21 1966

REB 4/21/66

For the U. S. Atomic Energy Commission

Original signed by
Robert E. Brinkman

by Isotopes Branch

Division of Materials Licensing
Washington, D. C. 20545

A/44

**U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE**

License No. 31-00461-10
Page 1 of 2 Pages
Amendment No. 14

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive; acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee	
<p>1. Name Eastman Kodak Company</p> <p>2. Address Rochester, New York 14650</p>	<p>In accordance with application dated March 18, 1968</p> <p>3. License number 31-00461-10 is amended in its entirety to read as follows:</p> <p>4. Expiration date April 30, 1973</p> <p>5. Reference No.</p>

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Hydrogen 3	A. Sealed, tritium-activated luminous sources (New England Nuclear NEP-1)	A. Not to exceed 1 millicurie each. Total not to exceed 300 sources

9. Authorized use

A. To be used as luminescent light sources for darkroom markers.

CONDITIONS

- 10. Byproduct material may only be used at Eastman Kodak Company Processing Laboratories throughout the United States except in agreement States as defined in Section 30.4(c) of Title 10, Code of Federal Regulations, Part 30.
- 11. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."

A/46

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 31-00461-10

Continued from Page 1

Amendment No. 14

12. Byproduct material shall be used by, or under the supervision of, individuals designated by the licensee's Radiation Protection Committee.
13. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated March 18, 1968.

Date APR 9 1968

6

For the U. S. Atomic Energy Commission

Original Signed by
Robert E. Brinkman
by Isotopes Branch

Division of Materials Licensing
Washington, D. C. 20545

Rules and Regulations

order with respect to licensed activities as the Commission determines to be appropriate or necessary in order to carry out the provisions of its regulations in Parts 30, 40, 50, 70, and 170, and of the Atomic Energy Act, as amended.

Paragraph 170.11(b) provides that "the Commission may, upon application by an interested person or upon its own initiative, grant such exemptions from the requirements of this part as it determines are authorized by law and are otherwise in the public interest." This section has been amended to set forth examples of licensed activities that would be favorably considered by the Commission for exemption from license fees.

Because these amendments relate solely to clarification and minor procedural matters the Commission has found that good cause exists for omitting notice of proposed rule making and public procedure thereon as unnecessary. Since the amendment relieves from restrictions under regulations currently in effect it will become effective without the customary 30-day notice.

Pursuant to the Atomic Energy Act of 1954, as amended and sections 551 and 552 of title 5 of the United States Code, the following amendments of Title 10 Chapter I, Code of Federal Regulations, Part 170, are published as a document subject to codification to be effective upon publication in the Federal Register (9-10-71):

1. Paragraph (b) of § 170.11 is amended to read as follows:

§ 170.11 Exemptions.

(b) (1) The Commission may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of this part as it determines are authorized by law and are otherwise in the public interest. (2) Applications for exemption under this paragraph may include activities such as but not limited to, the use of licensed materials for educational or noncommercial public displays or scientific collections. (3) The Commission may consider waiver of fee for any licensee who possessed licensed material on February 5, 1971, if an application is filed on or before October 15, 1971, to dispose of the licensed material or items containing licensed material by February 5, 1972. Such an application shall describe the licensed material then on hand. If a waiver is granted pursuant to this subparagraph, the Commission will amend the license to prohibit the acquisition of additional radioactive material in the interim.

2. Paragraph (c) of § 170.12 is amended to read as follows:

§ 170.12 Payment of fees.

(c) Annual fees. All licenses outstanding on February 5, 1971, are subject to payment of the annual fees prescribed by this Part 170, as amended, on or before October 15, 1971, and annually on February 5 thereafter. Provided, however, That, in the case of licenses which have been subject to license fees prior to February 5, 1971, the next annual fee will be payable one (1) year from the due date of the last fee payment and annually thereafter.

(Sec. 501, 65 Stat. 296, 41 U.S.C. 483a)

Dated at Washington, D.C., this 7th day of September 1971.

For the Atomic Energy Commission,

F. I. Hobbs,
Acting Secretary
of the Commission

[FR Doc. 71-13391 Filed 9-9-71; 8:04 am]

Title 10—ATOMIC ENERGY

Chapter I—Atomic Energy Commission

PART 170—FEES FOR FACILITIES AND MATERIALS LICENSES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

Exemptions and Payment of Fees

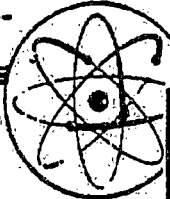
On March 16, 1971, the Atomic Energy Commission published in the Federal Register (36 F.R. 4978) a notice of rule making which amended § 170.12(c) of 10 CFR Part 170 to extend the due date for payment of license fees to sixty (60) days after the effective date of the amendments to Part 170 published on January 8, 1971. The notice also provided that under certain circumstances the applicable fee would be waived, or would be assessed in an amount applicable to the license as amended.

Since the Commission has continued to receive a number of applications for licensing actions which, if granted, would affect liability for or the amount of license fees, the Commission has amended § 170.12(c) to extend the license fee due date for the fee period February 5, 1971–February 5, 1972, to October 15, 1971. If an application is filed on or before October 15, 1971, to cancel a license, the Commission will waive the applicable fee upon cancellation of the license. If an application is filed on or before October 15, 1971, to amend a license and the Commission acts favorably upon the application, the fee will be assessed in the amount applicable to the license as amended.

Section 170.41 of Part 170 provides that where the Commission finds that a licensee has failed to pay the applicable annual fee, the Commission may suspend or revoke the license or may issue such

UNITED STATES ATOMIC ENERGY COMMISSION

RULES and REGULATIONS • TITLE 10 - ATOMIC ENERGY



**PART
170**

**FEEES FOR FACILITIES AND MATERIALS LICENSES
UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED**

GENERAL PROVISIONS

- Sec.
170.1 Purpose.
170.2 Scope.
170.3 Definitions.
170.4 Interpretations.
170.5 Communications.
170.11 Exemptions.
170.12 Payment of fees.
- SCHEDULE OF FEES**
- 170.21 Schedule of fees for production and utilization facilities.
170.21 Schedule of fees for materials licenses.
- ENFORCEMENT**
- 170.41 Failure by licensee to pay annual fee.

GENERAL PROVISIONS

§ 170.1 Purpose.

The regulations in this part set out fees charged for licensing services rendered by the Atomic Energy Commission, as authorized under Title V of the Independent Offices Appropriation Act of 1952 (45 Stat. 289; 31 U.S.C. 483a) and provisions regarding their payment.

§ 170.2 Scope.

Except for persons who apply for or hold the licenses exempted in § 170.11, the regulations in this part apply to each person who is an applicant for, or holder of, a specific license for byproduct material issued pursuant to Parts 30 and 32-35 of this chapter, for source material issued pursuant to Part 40 of this chapter, for special nuclear material issued pursuant to Part 70 of this chapter, or for a production or utilization facility issued pursuant to Part 50 of this chapter.

§ 170.3 Definitions.

As used in this part:

(a) "Byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(b) "Government agency" means any executive department, commission, independent establishment, corporation, wholly or partly owned by the United States of America which is an instrumentality of the United States, or any board, bureau, division, service, office, officer, authority, administration, or other establishment in the executive branch of the Government.

(c) "Materials license" means a byproduct material license issued pursuant to Part 30 of this chapter, or a source material license issued pursuant to Part 40 of this chapter, or a special nuclear material license issued pursuant to Part 70 of this chapter.

(d) "Nuclear reactor" means an apparatus, other than an atomic weapon, designed or used to sustain nuclear fission in a self-supporting chain reaction.

(e) "Other production or utilization facility" means a facility other than a nuclear reactor licensed by the Commission under the authority of section 103 or 104 of the Atomic Energy Act of 1954, as amended (the Act), and pursuant to the provisions of Part 50 of this chapter.

(f) "Power reactor" means a nuclear reactor designed to produce electrical or heat energy licensed by the Commission under the authority of section 103 or subsection 104b of the Act and pursuant to the provisions of §§ 50.21(b) or 50.22 of this chapter.

(g) "Production facility" means:

- (1) Any nuclear reactor designed or used primarily for the formation of plutonium or uranium-233; or
- (2) Any facility designed or used for the separation of the isotopes of uranium or the isotopes of plutonium, except laboratory scale facilities designed or used for experimental or analytical purposes only; or

(3) Any facility designed or used for the processing of irradiated materials containing special nuclear material, except (i) laboratory scale facilities designed or used for experimental or analytical purposes, and (ii) facilities in which the only special nuclear materials contained in the irradiated material to be processed are uranium enriched in the isotope U²³⁵ and plutonium produced by the irradiation, if the material processed contains not more than 10⁻⁴ grams of plutonium per gram of U²³⁵ and has fission product activity not in excess of 0.25 millicurie of fission products per gram of U²³⁵.

(h) "Research reactor" means a nuclear reactor licensed by the Commission under the authority of subsection 104c of the Act and pursuant to the provisions of § 50.21(c) of this chapter for operation at a thermal power level of 10 megawatts or less, and which is not a testing facility as defined by paragraph (m) of this section.

(i) "Sealed source" means any byproduct material that is encased in a capsule designed to prevent leakage or escape of the byproduct material.

(j) "Source material" means:

- (1) Uranium or thorium, or any combination thereof, in any physical or chemical form; or
- (2) Ores which contain by weight one-twentieth of one percent (0.05%) or more of (i) uranium, (ii) thorium, or (iii) any combination thereof. Source material does not include special nuclear material.

(k) "Special nuclear material" means:

- (1) Plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material but does not include source material; or
- (2) any material artificially enriched by any of the foregoing, but does not include source material.

March 16, 1971

PART 170 - FEES FOR FACILITIES AND MATERIALS ETC.

§ 170.21 Schedule of fees for production and utilization facilities.

Applicants for construction permits or operating licenses for production or utilization facilities and holders of construction permits or operating licenses

for production or utilization facilities shall pay the fees set forth below: *Provided, however, That annual fees shall not be paid by holders of licenses which authorize the possession but not operation of production or utilization facilities:*

SCHEDULE OF FEES

Facility (thermal megawatt values refer to the maximum capacity stated in the permit or license) ¹	Application fee for construction permit	Construction permit fee ²	Operating license fee ³	Annual fee after issuance of operating license
(1) Power reactor ⁴	\$25,000	\$45/Mw(t)	\$50,000+ \$35/Mw(t)	\$32/Mw(t) (\$2,000 minimum)
(2) Testing facility	500	3,000	4,500	2,500
(3) Research reactor	500	3,000	3,000	1,500
(4) Other production or utilization facility	3,000	15,000	20,000	10,000

¹ Amendments reducing capacity shall not entitle the applicant to a partial refund of any fee; applications for amendments increasing capacity to a higher fee category will not be accepted for filing unless accompanied by the prescribed fee less the amount already paid.

² Thermal megawatts.
³ When construction permits are issued for two or more power reactors of the same design at a single power station that were subject to concurrent licensing review, the construction permit fee of \$45/Mw(t) will be charged only for the first reactor.

⁴ When operating licenses are issued for two or more power reactors of the same design at a single power station that were subject to concurrent licensing review, the operating license fee will be \$50,000+\$35/Mw(t) for the first reactor and \$30,000+\$32.50/Mw(t) for each additional reactor.

⁵ For construction permits and operating licenses for power reactors with a capacity in excess of 3,000 Mw(t) the fee will be computed on a maximum power level of 3,000 Mw(t).

§ 170.31 Schedule of fees for materials licenses.

Applicants for materials licenses and holders of materials licenses shall pay the following fees:

SCHEDULE OF MATERIALS LICENSE FEES

Category of materials licenses ¹	Application fee ²	Annual fee
1. Special nuclear material: A. Licenses for quantities greater than 350 grams of contained uranium-235, uranium-233 and plutonium, except for licenses authorizing possession and use of special nuclear material in sealed sources as defined in Part 70 of this chapter and licenses for storage only.	\$1.00 per gram (maximum fee \$5,000).	\$1.00 per gram (maximum fee \$5,000).
B. Licenses for quantities greater than 350 grams of contained uranium-235, uranium-233 and plutonium, for storage only, except for licenses authorizing possession only of special nuclear material in sealed sources as defined in Part 70 of this chapter.	\$500	\$500
C. All other specific special nuclear material licenses	\$40	\$40
2. Source material: A. Licenses for source material in quantities greater than 50 kilograms, except licenses for storage only.	\$1.45 per kilogram (maximum fee \$500).	\$1.45 per kilogram (maximum fee \$500).
B. All other specific source material licenses	\$40	\$40
3. Byproduct material: A. Licenses for possession and use of byproduct material issued pursuant to Parts 30 and 33 of this chapter for processing, or manufacturing of items containing byproduct material or quantities of byproduct material for commercial distribution.	\$300	\$300
B. Licenses for byproduct material issued pursuant to Part 34 of this chapter for industrial radiography.	\$150	\$150
C. Licenses for possession and use of byproduct material in quantities of 10,000 curies or more in sealed sources for irradiation of materials.	\$375	\$375
D. Licenses issued pursuant to Part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under Part 31 or 35 of this chapter.	\$200	\$200
E. Licenses issued pursuant to Part 32, except § 32.11, of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of Part 30 of this chapter.	\$200	\$200
4. Waste Disposal: A. Waste disposal licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of commercial disposal by land or sea burial by the waste disposal licensee.	\$500	\$500
5. All other licenses: A. All other specific materials licenses other than licenses in Categories 1A through 4A.	\$40	\$40

¹ Amendments reducing the scope of a licensee's program shall not entitle the licensee to a partial refund of any fee; applications for amendments increasing the scope of a program to a higher fee category will not be accepted for filing unless accompanied by the prescribed fee less the amount already paid.

² Applications for materials licenses covering more than one fee category shall be accompanied by the prescribed fee for each category.

ENFORCEMENT

§ 170.41 Failure by licensee to pay annual fees.

In any case where the Commission finds that a licensee has failed to pay the applicable annual fee required in this part, the Commission may suspend or revoke the license or may issue such order with respect to licensed activities as the Commission determines to be appropriate or necessary in order to carry out the provisions of this part, Parts 30, 40, 50, and 70 of this chapter and of the Act.

33 FR 11587

36 FR 149

U.S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 31-461-10

AMENDMENT No. 2

Eastman Kodak Company
Kodak Park Works
Rochester, New York

Attn: Mr. Julian H. Webb

In accordance with telegram dated January 20, 1958, License No. 31-461-10 is amended to add:

6. Byproduct material (element & mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
C. Hydrogen 3	C. New England Nuclear Corporation Lucite engravings painted with tritium activated luminous paint	C. 8 curies

9. Authorized use

C. Location of dispersal areas and machine parts.

CONDITIONS

Condition 13 shall read as follows: Total amount of hydrogen 3 (tritium) procured under this license shall not exceed 36 curies.

14. Byproduct material may also be used at the following Eastman Kodak Company Processing Laboratories:

Chamblee (Atlanta), Georgia
Dallas, Texas
Middletown, Ohio
Los Angeles, California

Chicago, Illinois
Fair Lawn, New Jersey
Flushing, New York
Palo Alto, California

and Honolulu Hawaii, Ltd., Hawaii.

A/16

For the U.S. Atomic Energy Commission
1-21-58

Date January 2, 1958

by [Signature]
Director, Isotopes Extension
Division of Civilian Application
Oak Ridge, Tennessee

Chief, Isotopes Extension
Div. of Licensing & Regulation
Oak Ridge, Tennessee

[Handwritten initials]

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 31-461-10
(D66)

Amendment No. 12

Eastman Kodak Company
Rochester, New York

Attention: Dr. W. L. Sutton

In accordance with your application dated March 12, 1964, License No. 31-461-10 is amended as follows:

To extend the expiration date (Item 4) from April 30, 1964 to April 30, 1966.

To change the symbol below the license number from D64 to D66.

DUPLICATED
FOR DIV. OF COMPLIANCE

A/40

Date APR 28 1964

For the U. S. Atomic Energy Commission
Original Signed by
Isotopes Branch Robert E. Brinkman
by Division of Materials Licensing

RCA 4/28/64

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 31-461-10
(D64)

AMENDMENT NO. 10

Eastman Kodak Company
Rochester 4, New York

Attention: Dr. W. L. Sutton, Secretary
Radiation Protection Committee

In accordance with letter dated September 19, 1962, signed by William L. Sutton, M.D., License No. 31-461-10 is amended as follows:

Conditions 11 and 15 are revised to read:

- 11. The authorized place of use includes Eastman Kodak Company Processing Laboratories throughout the United States except in Agreement States as defined in Section 30.4(v) of Title 10, Code of Federal Regulations, Part 30.
- 15. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7 and 8 of this license in accordance with statements, representations and procedures contained in letter dated September 19, 1962, with attachments and signed by William L. Sutton, M.D.

A/36

For the U. S. Atomic Energy Commission

Original Signed by
Robert E. Brinkman

by Isotopes Branch

Division of Licensing and Regulation
Washington 25, D. C.

OCT 11 1962

Date _____

John W. Sutton

REB 10/11/62

BYPRODUCT MATERIAL LICENSE No. **31-461-10** Amendment No. **4**
(F61)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated May 22, 1959	
1. Name	Eastman Kodak Company Rochester	3. License number	31-461-10 is amended in its entirety to read as follows:
2. Address	New York	4. Expiration date	June 30, 1961
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time.	
A. Hydrogen-3 (See page 2)	A. Sealed sources (U. S. Radium Corp. Model No. LAB-252, B-1) (See page 2)	A. 400 sources of 60 millicuries each. Total 24 curies (See page 2)	
9. Authorized use			
A.-C. For use in dark rooms as locators of dangerous areas and machine parts.			

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. Byproduct material may also be used at the following Eastman Kodak Company Processing Laboratories:
- | | |
|-----------------------------|----------------------------|
| Chamblee (Atlanta), Georgia | Chicago, Illinois |
| Dallas, Texas | Fair Lawn, New Jersey |
| Findlay, Ohio | Flushing, New York |
| Los Angeles, California | Palo Alto, California |
| | Kodak Hawaii, Ltd., Hawaii |
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards For Protection Against Radiation".
13. Byproduct material shall be used by, or under the direct supervision of, William L. Sutton.
14. Byproduct material as sealed sources shall not be opened by the licensee.

DUPLICATED

For the U. S. Atomic Energy Commission

Date June 8, 1959

FOR DIV. OF INSP.

by

Original Signed By
James R. Mason

A/22
Chief, Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

WSC / Cooper

REB 6/9/59

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

Continued from page 1

License Number 31-461-10
(F61)

Amendment No. 4

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radio- activity which licensee may possess at any one time
B. Hydrogen-3	B. Sealed sources (New England Nuclear Corp. Model No. NEP-1)	B. 1500 sources of 1 millicurie each. Total 1.5 curies
C. Hydrogen-3	C. Sealed sources (New England Nuclear Corp. lucite engravings painted with tritium activated luminous paint)	C. 1500 sources of 20 millicuries each. Total 30 curies

For the U. S. Atomic Energy Commission
Original Signed By
James R. Mason

Date June 8, 1959

by Chief, Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

1. WSC/ [Signature]

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

NO. 31-461-10, AMENDMENT NO. 9
(D64)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		License No. 31-461-10 is hereby amended in its entirety to read as follows:	
1. Name	Eastman Kodak Company Rochester 4, New York	3. Expiration date	
2. Address		4. Expiration date	April 30, 1964
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time	
A. Hydrogen 3 (See page 2)	A. Sealed sources (U. S. Rad. Corp. Model LAB-252-B-1)	A. 400 sources of 60 millicuries each - total 24 curies	
9. Authorized use			
A - D. Luminescent light sources in darkrooms used for manufacture of sensitized products and in photographic processing areas.			

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. Byproduct material may also be used at the following Eastman Kodak Company Processing Laboratories:

Chamblee (Atlanta), Georgia	Los Angeles, California	Flushing, New York
Dallas, Texas	Chicago, Illinois	Palo Alto, California
Findlay, Ohio	Fair Lawn, New Jersey	Kodak Hawaii, Ltd., Hawaii
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."
13. Byproduct material shall be used by, or under the supervision of, personnel designated by the Radiation Protection Committee, Eastman Kodak Company, Dr. W. L. Sutton, Sec'y.
14. Byproduct material as sealed sources shall not be opened by the licensee.

DUPLICATED
FOR FILE

(See page 2)

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U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 31-461-10
(D64)

AMENDMENT NO. 9

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
B. Hydrogen 3	B. Sealed sources (New England Nuclear Corp. Model NEP-1)	B. 3,000 sources of 1 milli-curie each - total 3 curies
C. Hydrogen 3	C. Sealed sources (New England Nuclear Corp. lucite engravings painted w/tritium act'd luminous paint	C. 2,500 sources not to exceed 100 millicuries each - total not to exceed 45 curies
D. Hydrogen 3	D. Sealed sources (U. S. Radium Corp. Model LAB-252-SB-4)	D. 25 sources of 2 millicuries each - total 50 millicuries

CONDITIONS

15. Except as provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in his applications dated May 24, 1957, July 22, 1957, December 9, 1957, May 22, 1959, October 14, 1960, and April 27, 1961; and in letters from Dr. W. L. Sutton dated January 14, 1958, April 30, 1958, and December 15, 1959.

U.S. AEC
DIVISION OF COMPLIANCE

MAY 3 - 1962

Date _____

1. EOH / lam

For the U. S. Atomic Energy Commission

Original Signed by
Robert E. Brinkman

by _____
Isotopes Branch

Division of Licensing and Regulation
Washington 25, D. C.

REB 5/2/62

U. S. ATOMIC ENERGY COMMISSION

BYPRODUCT MATERIAL LICENSE NO 31-461-10, AMENDMENT NO II (D64)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated May 14, 1963, 3. License number 31-461-10 is amended in its entirety to read as follows:	
1. Name Eastman Kodak Company			
2. Address Rochester 4, New York		4. Expiration date April 30, 1964	
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time	
A. Hydrogen 3	A. Sealed Sources (New England Nuclear Corp. Model NEP-1)	A. 300 sources of 1 millicurie each. Total - 300 millicuries.	

9. Authorized use

A. To be used as luminescent light sources for darkroom markers.

CONDITIONS

- ~~10. The licensee shall use the authorized place of use as the licensee's address stated in Item 2 above.~~
10. Byproduct material shall only be used at Eastman Kodak Company Processing Laboratories throughout the United States except in Agreement States as defined in Section 30.4(u) of Title 10, Code of Federal Regulations, Part 30.
11. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation".
12. Byproduct material shall be used by, or under the supervision of, individuals designated by the Radiation Protection Committee, Eastman Kodak Company, Dr. W. L. Sutton, Secretary.
13. Byproduct material as sealed sources shall not be opened by the licensee.
14. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7 and 8 of this license in accordance with statements, representations and procedures contained in letter dated September 19, 1962, with attachments, signed by William L. Sutton, M. D. and application dated May 14, 1963.

Date June 6, 1963

I. Kent Allen

U.S. GOVERNMENT PRINTING OFFICE: 1962 O - 648294

DUPLICATED

FOR DIV OF COMPLIANCE by

For the U. S. Atomic Energy Commission
Original Signed by
Robert E. Brinkman
Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

A/BX

REB 6/4/63

BYPRODUCT MATERIAL LICENSE **31-461-10, AMENDMENT NO. 5**
(761)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with letter from William L. Sutton dated December 15, 1959,	
1. Name	Eastman Kodak Company	3. License number	31-461-10 is amended in its entirety to read as follows:
2. Address	Rocheater 4, New York	4. Expiration date	June 30, 1961
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time.	
(See Page 2)	(See Page 2)	(See Page 2)	
9. Authorized use			
(See Page 2)			

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. **Byproduct material may also be used at the following Eastman Kodak Company Processing Laboratories:**

Chamblee (Atlanta), Georgia	Los Angeles, California	Flushing, New York
Dallas, Texas	Chicago, Illinois	Palo Alto, California
Findlay, Ohio	Fair Lawn, New Jersey	Kodak Hawaii, Ltd., Hawaii
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."
13. Byproduct material shall be used by, or under the direct supervision of, **William L. Sutton.**
14. Byproduct material as sealed sources shall not be opened by the licensee.

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U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

Supplementary Sheet

License Number 31-461-10
(F61)

AMENDMENT NO. 5

CONTINUED:

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Hydrogen 3	A. Sealed Sources (U. S. Radium Corporation Model No. LAB-252 B-1)	A. 400 sources of 60 millicuries each. Total 24 curies
B. Hydrogen 3	B. Sealed Sources (New England Nuclear Corporation Model No. NEF-1)	B. 1,500 sources of 1 millicurie each. Total 1.5 curies
C. Hydrogen 3	C. Sealed Sources (New England Nuclear Corporation lucite engravings painted with tritium activated luminous paint)	C. 1,500 sources not to exceed 60 milli- curies per source. Total not to exceed 30 curies.

9. Authorized use

A, B, and C: For use in dark rooms as locators of dangerous areas and machine parts.

DUPLICATED
FOR DIV. OF RSP

Date January 6, 1960

For the U. S. Atomic Energy Commission

Original Signed By
James R. Mason

by Chief, Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

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REA 1/7/60

EASTMAN KODAK COMPANY

ROCHESTER, NEW YORK 14650

PLEASE ADDRESS REPLY TO
KODAK PARK DIVISION

TELEPHONE
AREA CODE 716 458-1000

February 11, 1971

Director of Regulations
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attn: Director, Division of State and Licensee Relations

Gentlemen:

Eastman Kodak presently holds two AEC Radioactive Material Licenses: STB-295, Amendment #3 (expires May 31, 1972) which is a license to export thorium contained in optical glass, photographic lenses, and dye transfer paper; and #31-00461-10, Amendment #14 (expires April 30, 1973) which permits us to use sealed tritium activated luminous light sources in non-agreement states. For your convenience, I am enclosing copies of the first page of both licenses.

Having read the recently amended Part 170 and its attached schedule of fees for materials licenses, it is my opinion that Eastman Kodak Company is not required to pay either application or annual fees in regards to these licenses. I would appreciate your confirmation of this decision if I am correct. If Eastman Kodak Company is required to pay a fee, would you please let me know and be sure that all correspondence and billing is sent to the undersigned at the address shown below.

Very truly yours,



Richard F. Scherberger, Secretary
Radiation Protection Committee

RFS:bwd

Encs.

Please address reply to: Richard F. Scherberger
Laboratory of Industrial Medicine
Kodak Park Division - Building 2
Rochester, New York 14650



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Kodak

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

This Copy Is For Your Files

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		
1. Name	Eastman Kodak Company	In accordance with application dated March 18, 1968 3. License number 31-00461-10 is amended in its entirety to read as follows:
2. Address	Rochester, New York 14650	
		4. Expiration date April 30, 1973
		5. Reference No.
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Hydrogen 3	A. Sealed, tritium- activated luminous sources (New England Nuclear NEP-1)	A. Not to exceed 1 millicurie each. Total not to exceed 300 sources

9. Authorized use

A. To be used as luminescent light sources for darkroom markers.

CONDITIONS

- 10. Byproduct material may only be used at Eastman Kodak Company Processing Laboratories throughout the United States except in agreement States as defined in Section 30.4(c) of Title 10, Code of Federal Regulations, Part 30.
- 11. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."

Date APR 9 1968

For the U. S. Atomic Energy Commission

Robert E. Borkman
by Isotopes Branch

Division of Materials Licensing
Washington, D. C. 20545

FORM AEC-580
(6-55)

AEC LICENSE NO.

THIS LICENSE EXPIRES May 31, 1972

STB-295
Amendment No. 3

United States of America
Atomic Energy Commission

Pursuant to the Atomic Energy Act of 1954 and the regulations of the U. S. Atomic Energy Commission issued pursuant thereto, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued to the licensee authorizing the export of the materials and/or production or utilization facilities listed below, subject to the terms and provisions herein. The license to export extends to the licensee's duly authorized shipping agent.

LICENSEE NAME <u>Eastman Kodak Company</u> ADDRESS <u>Rochester, New York</u>		PURCHASER OR ULTIMATE CONSIGNEE IN FOREIGN COUNTRY NAME <u>SEE CONDITION 3 ON</u> ADDRESS <u>PAGE 2 OF THIS LICENSE</u>
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APPLICANT'S REF. NO. 	COUNTRY OF ULTIMATE DESTINATION <u>SEE CONDITION 3</u>	INTERMEDIATE CONSIGNEE IN FOREIGN COUNTRY NAME <u>SEE CONDITION 3</u> ADDRESS <u>SEE CONDITION 3</u>
---------------------------------	--	---

AUTHORIZED EXPORTER, IF OTHER THAN LICENSEE NAMED ABOVE

NAME NONE

ADDRESS NONE

QUANTITY	DESCRIPTION OF FACILITIES OR MATERIALS	UNIT PRICE	TOTAL PRICE
ANY	This amendment only extends the expiration date of the license. Thorium contained in optical glass, photographic lenses and dye transfer paper. CONDITIONS 1, 2, 3, and 4 on page 2 of this license apply to this export. //END//		

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license is subject to the right of recapture or control reserved by Section 108 of the Atomic Energy Act of 1954, and to all of the other provisions of said Act, now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED AEC REPRESENTATIVE

Eber R. Price
 Eber R. Price, Director
 Division of State & Licensee Relations
 APR 28 1970

EXPORT LICENSE

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BYPRODUCT MATERIAL LICEN. NO. 31-461-10 Amendment No. 7
(F63)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated April 27, 1961	
1. Name	Eastman Kodak Company	3. License number	31-461-10 is amended in its entirety to read as follows:
2. Address	Rochester 4, New York	4. Expiration date	June 30, 1963
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time	
A. Hydrogen-3 (See page 2)	A. Sealed sources (U. S. Radium Corporation Model LAB-252-B-1)	A. 400 sources of 60 millicuries each. Total 24 curies	
9. Authorized use			
A. - D. Luminescent light sources in darkrooms used for manufacture of sensitized products and in photographic processing areas.			

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. Byproduct material may also be used at the following Eastman Kodak Company Processing Laboratories:
- | | | |
|-----------------------------|-------------------------|----------------------------|
| Chambles (Atlanta), Georgia | Los Angeles, California | Flushing, New York |
| Dallas, Texas | Chicago, Illinois | Palo Alto, California |
| Findlay, Ohio | Fair Lawn, New Jersey | Kodak Hawaii, Ltd., Hawaii |
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards For Protection Against Radiation".
13. Byproduct material shall be used by, or under the supervision of, personnel designated by the Radiation Protection Committee, Eastman Kodak Company, Dr. William L. Sutton, Secretary.
14. Byproduct material as sealed sources shall not be opened by the licensee.

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U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

Supplementary Sheet

Continued from page 1

License Number 31-461-10
(F63)

Amendment No. 7

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
B. Hydrogen-3	B. Sealed sources (New England Nuclear Corporation Model NEP-1)	B. 3,000 sources of 1 millicurie each. Total 3 curies
C. Hydrogen-3	C. Sealed sources (New England Nuclear Corporation lucite engravings painted with tritium activated lumi- nous paint	C. 2,500 sources of 100 millicuries each. Total 45 curies
D. Hydrogen-3	D. Sealed sources (U. S. Radium Corporation Model LAB-252-SB-4)	D. 25 sources of 2 millicuries each. Total 50 millicuries

CONDITIONS

15. Except as provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7 and 8 of this license in accordance with statements, representations, and procedures contained in his applications dated May 24, 1957; July 22, 1957; December 9, 1957; May 22, 1959; October 14, 1960 and April 27, 1961 and in letters from William L. Sutton dated January 14, 1958; April 30, 1958 and December 15, 1959.

UNCLASSIFIED
DIV. OF COMPLIANCE

For the U. S. Atomic Energy Commission
Original Signed By
James R. Macca

Date June 7, 1961

by Chief, Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

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R. S. A. 4/7/61