

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-R0027

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Materials Branch, Directorate of Licensing. 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, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 16 and the appropriate fee enclosed. (See Note in Instruction Sheet).

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital person, etc. Include ZIP Code and telephone number.) HAMILTON WATCH COMPANY, INC. 901 Wheatland Avenue Lancaster, PA 17604 PHONE - 1-717-394-7161		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a). Include ZIP Code.) 030-12704 03600 SAME 030-12704	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Refer to Supp. #2 RESEARCH & DEVELOPMENT ENGINEERING		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) -3J Amend to License #37-03572-02E Refer to Supplement #3	
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.) Bernard Cattin, V.P. Director of Operations Park McKinney, Production Manager Olivier Barrelet, Research and Development		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.) Olivier Barrelet Refer to Supplement #5	
6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.) HYDROGEN 3 3 _H Tritium		(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.) Gaseous tritium light source. Sealed source, American Atomics Model #40131, 40132, 40133. 50 Sources and each source containing not more than 200 MCI (MILLI) Maximum quantity of Tritium: 10 Curies	

RECEIVED BY LFMB

Date.. 2-10-77
Time.. AM
By.. [Signature]
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Action Compl. 2-10-77

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.)

Tritium filled tubes which are behind liquid crystal display within a digital watch, permitting reading of time in low ambient light. Only for use for ~~55858~~ research, development, testing and evaluation purpose.

See attached drawing and information.

"OFFICIAL RECORD COPY" ML10

B512050458 B51024
REG1 LIC30
37-03572-06 PDR

Applicant.....
Check No. 1734 85958
Amount.. 255-3K
Date of Check.. 2-4-77
Date Check Rec'd.. 2-10-77
Received By.. [Signature]

(Continued on reverse side)

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

B. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	AMERICAN ATOMICS		<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No
b. Radioactivity measurement standardization and monitoring techniques and instruments	Training with Radiologic monitor equipment		<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
c. Mathematics and calculations basic to the use and measurement of radioactivity			<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
d. Biological effects of radiation			<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> 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
^3H		AMERICAN ATOMICS CORP. SUNCRUX	Course On the job	Handling ^3H

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 (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
Tritium air monitor (Overhoff & Assoc.) Betatec Mod. 210	1	Tritium	5MCi/m ³		SURVEY

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

REFER TO SUPPLEMENT #11

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

REFER TO SUPPLEMENT #12

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

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 **REFER TO SUPPLEMENT #13**

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. **REFER TO SUPPLEMENT #14**

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. **AMERICAN ATOMICS CORP.**

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.

License Fee Category \$ 255.00
Fee Enclosed \$ 255.00

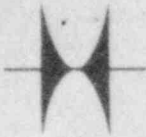
HAMILTON WATCH COMPANY, INC.
Applicant named in item 1

By: B. Cattin,

Date January 26, 1977

V.P. Director of Operations
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.



HAMILTON WATCH CO., INC.

LANCASTER, PENNSYLVANIA 17604. U.S.A. (717) 394-7161

SUPPLEMENT TO ATOMIC ENERGY COMMISSION FORM 313

SUPPLEMENT SECTION 2

Tritium will be processed on research and development basis only. See attached sketch of laboratory.

SUPPLEMENT SECTION 3

This license is an amendment to license 37-035-72-02E for the use of Tritium.

SUPPLEMENT SECTION 5

Olivier D. Barrelet, had former training by American Atomics Corporation in Tritium and sealed Tritium Luminous Sources and has studied documents related to Tritium, and had training with Radiologic Monitors with Overhoff and Associates.

SUPPLEMENT SECTION 11

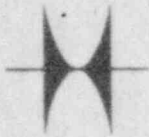
Betatec Model 210 is calibrated in accordance to instruction supplied by Overhoff and Associates.

SUPPLEMENT SECTION 12

All employees or individuals working in or frequenting any portion of a controlled area (R&D Lab.) will be informed as to the presence of sources of radiation.

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SUPPLEMENTS (Con.'t.) - Page 2

The persons involved in these areas will be instructed in safety problems associated therewith and in precautions or procedures to minimize exposure.

SUPPLEMENT SECTION 13

The handling of Tritium luminous source will be performed with a Tritium Safe Hood. Each hood will exhaust a minimum of 200 CFM and is monitored by a Tritium Air Monitor.

SUPPLEMENT SECTION 14

The Radiation Protection Program of Hamilton Watch Co., R & D Division, will be based on use of a Tritium Air Monitor (Betatec Model 210). Receiving and Assembly areas are monitored and have safe hoods for assembly and inspection. All parts containing sources will be stored in cabinets that are exhausted and monitored.

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WINDOW

WINDOW

RESEARCH

AND

DEVELOPMENT

LABORATORY

OF

HAMILTON WATCH COMPANY

LAB
BENCH

LAB BENCH

SINK

LAB BENCH

AIR
VENTILATOR
HOOD

LAB
BENCH

LAB BENCH

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