

JUN 24 1985

License No. 37-03572-06
Docket No. 030-12704
Control No. 103666

Hamilton Watch Company, Inc.
ATTN: Thomas E. Dutzler
Director of Factory Operations
941 Wheatland Avenue
Lancaster, Pennsylvania 17604

Gentlemen:

This is in reference to your application dated April 10, 1985 to amend License No. 37-03572-06. In order to continue our review, we need the following additional information:

1. You state in Item 7 that Mr. Fenwick will attend a Nuclear Safety Course. Please confirm that Mr. Fenwick has already completed the course, or give the date when the course will be completed. We need a firm commitment as to this training if Mr. Fenwick is to act as Radiation Safety Officer.
2. 10 CFR 19.12 requires that licensees instruct workers and others (e.g., security, custodial, and maintenance personnel) frequenting any portion of a restricted area in the subjects enumerated in that section. Please submit a training program that will meet these requirements.
3. Please describe the facilities where licensed material will be used. These include storage, manufacturing, assembly, or other areas where licensed material will be stored or used. 10 CFR 30.33(a)(2) provides that an application for a specific license will be approved if the applicant's equipment and facilities are adequate to protect health and minimize danger to life or property. Please submit information that demonstrates that you meet this requirement.
4. Describe your survey procedures to detect radioactive contamination in your facility. State your action limits, and what action will be taken when these contamination limits are exceeded.

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We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 103666.

Sincerely,

Original Signed by:
Laurence F. Friedman, Ph.D.
Laurence F. Friedman, Ph.D., C.H.P.
Senior Health Physicist
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:
10 CFR Part(s) 19, 20 and 30

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APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

<p>FEDERAL AGENCIES FILE APPLICATIONS WITH:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS WASHINGTON, DC 20555</p> <p>ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:</p> <p>CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION, REGION I NUCLEAR MATERIAL SECTION B 601 PARK AVENUE KING OF PRUSSIA, PA 19406</p> <p>ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION, REGION II MATERIAL RADIATION PROTECTION SECTION 101 MARIETTA STREET, SUITE 2900 ATLANTA, GA 30322</p>	<p>IF YOU ARE LOCATED IN:</p> <p>ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION, REGION III MATERIALS LICENSING SECTION 790 ROOSEVELT ROAD GLEN ELLYN, IL 60137</p> <p>ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION, REGION IV MATERIAL RADIATION PROTECTION SECTION 611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TX 76011</p> <p>ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:</p> <p>U.S. NUCLEAR REGULATORY COMMISSION, REGION V MATERIAL RADIATION PROTECTION SECTION 1450 MARIA LANE, SUITE 270 WALNUT CREEK, CA 94644</p>
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PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

<p>1. THIS IS AN APPLICATION FOR (Check appropriate item):</p> <p><input type="checkbox"/> A. NEW LICENSE</p> <p><input checked="" type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER <u>37-03572-06</u></p> <p><input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____</p>	<p>2. NAME AND MAILING ADDRESS OF APPLICANT (include Zip Code):</p> <p>Hamilton Watch Company, Inc. 941 Wheatland Avenue Lancaster, PA 17604</p>
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3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED:

Hamilton Watch Company, Inc.
941 Wheatland Avenue
Lancaster, PA 17604

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4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION	TELEPHONE NUMBER
Thomas E. Deitzler, Jr.	(717) 394-7161 (X 2133)

SUBMIT ITEMS 5 THROUGH 11 ON EN 4 11 PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL a. Element and mass number, b. chemical and/or physical form and c. maximum amount which will be produced at any one time	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS
9. FACILITIES AND EQUIPMENT	10. RADIATION SAFETY PROGRAM
11. WASTE MANAGEMENT	12. LICENSEE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY 1-J AMOUNT ENCLOSED \$ 60.00

13. CERTIFICATION (Must be completed by applicant): THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001, ACT OF JUNE 25, 1948 (22 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.

SIGNATURE OF CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
<i>Thomas E. Deitzler, Jr.</i>	Thomas E. Deitzler, Jr.	Dir. of Factory Operations	4/10/85

14. ANNUAL RECEIPTS		14. VOLUNTARY ECONOMIC DATA	
<\$250K	\$1M-3.5M	a. NUMBER OF EMPLOYEES (Total for entire facility, excluding outside contractors)	b. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (labor and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential, commercial or financial—proprietary—information furnished to the agency in confidence)
\$250K-500K	\$3.5M-7M	c. NUMBER OF BEDS	<input type="checkbox"/> YES <input type="checkbox"/> NO
\$500K-750K	\$7M-10M		
\$750K-1M	>\$10M		

FOR NRC USE ONLY				APPROVED BY
TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	<p>0366C 904 Manes Jr DATE APR 15 1985 4/29/85</p>
Amend.	Apr. 11	3B	OFFICIAL RECORD COPY	
AMOUNT RECEIVED	CHECK NUMBER			
\$1000/60	5169/054513 (4,204,40)	ML18		

U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Application for Material License

Amendment to Lic. No. - 37-03572-06

Item 5 - Radioactive Material

a.) <u>Element and Mass Number</u>	i. <u>Chemical and/or Physical Form</u>	c.) <u>Maximum amount which will be possessed at any one time</u>
A. Hydrogen 3	A. Radium Chemic PS362 and/or Brandhurst Company, Ltd. Triluco Tritiated Luminous Paint	A. Unspecified
B. Promethium 147	B. W. Maier Promethium Oxalate Luminous Paint	B. Unspecified

Item 6 - Purpose(s) for which Licensed Material will be used

- A. Distribution of time pieces, hands, and dials to which Radium Chemic PS362 and/or Brandhurst Company, Ltd., tritiated luminous paint have been applied to persons exempt from licensing pursuant to Section 30.15 (a), 10CFR Part 30.

- B. Distribution of timepieces, hands, and dials to which W. Maier promethium oxalate luminous paint has been applied to persons exempt from licensing pursuant to Section 30.15 (a), 10CFR Part 30.

Item 7 - Individual(s) responsible for Radiation Safety Program and their training and experience.

All licensed material shall be used by, or under the supervision of Daniel Fenwick, Thomas Deitzler, or Daniel Klein.

Daniel Fenwick - Trained by O. Barrelett whose background and education in field are listed on original application and amendments.

- On the Job Training
- Has been with Hamilton for 4 1/2 years as supervisor of After Sales Service. Serves as Safety Protection Officer. In this capacity monitors all equipment and personnel who handle modules and painted sources.
- Mr. Barrelett has directed us to send Dan to Harvard University for Nuclear Safety Training Course sometime in 1985.
- Watchmaking skills have been taught by Bulova personnel and an educational tour of Switzerland.

Thomas Deitzler - On the Job Training

- Has handled NRC communications since joining company in December of 1981 as the Plant Engineer. Has filed and amended licenses 37-03572-06 and 37-03572-8E since that time.
- Presently is Director of Factory Operations and reports directly to Vice President of Operations, Paul D. Karpouzis.
- Mr. D. Fenwick reports directly to me.
- Mr. D. Klein reports directly to me.

Daniel Klein - Trained by Mr. O. Barrelett

- On the Job Training
- Has over 10 years with the company as Supervisor of Assembly Operations. Has been trained in Switzerland by ETA personnel and is currently in charge of assembly of luminous products.

Item 8 - Training for individuals walking in or frequenting
restricted areas.

Individuals have been informed of enclosed memo from T. E. Deitzler dated October 14, 1982. This memo is posted on the bulletin board in the Assembly area for all personnel to view.

(See Attachment)

INTERNAL CORRESPONDENCE

TO: Tritium Room Operators FROM: T. E. Deitzler
CC: N.R.C. File DATE: October 14, 1982

SUBJECT: PROCEDURES & PRECAUTIONS FOR CONTAMINATION

The following is a fundamental procedure that is required by the N.R.C. This is a seemingly simple requirement, however, it must be rigidly and continuously adhered to by all workers.

Working conditions must be arranged to provide a generally safe environment for the workers and to encourage their cooperation in carrying out rules intended to preclude any known possibility of injury. The essential requirement is neat and orderly "housekeeping" which, under proper supervision, results in better working conditions, increased productivity, and safety for the individual worker. All workrooms inhabited by workers shall be equipped with proper ventilation and a Tritium monitor. In addition to this, the personnel shall be instructed about: 1) Instruction of handling the modules; 2) Effects of radiation; 3) Personal cleanliness.

Radionuclides can be taken into the body by a number of routes including ingestion or absorption through the skin. Extreme personal cleanliness and care are therefore needed. In work with sealed sources (which we do here at Hamilton), contamination will be a very minor problem, barring rupture of the container and dispersion of the source material. Hands shall be washed frequently, and shall be washed before eating, smoking, and at the end of each work period. No edibles of any kind--food, gum, candy, beverages--shall be brought into contaminated areas or areas that may become contaminated between radiation control surveys. Smoking shall be prohibited in such zones. Personnel should refrain from using personal items in the work area. Personnel shall keep their work area free from equipment and materials not needed for the immediate work. Orderliness is a prime requirement for eliminating the spread of contamination.

TED:kbm

Item 9 - Facilities and Equipment

There is no laboratory required to handle tritium paint in the assembly of watches.

Item 10 - Radiation Safety Program

A copy of Handbook 92, "Safe Handling of Radioactive Materials" is made available to the people working on watches containing tritium.

The license complies with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers, Inspections" and Part 20, "Standards for Protection Against Radiation".

Item 11 - Waste Management

There is no waste generated.

Docket No. 030-06106

Inquiry No. 85-01

Paragraph #5

All tritium painted dials have been placed in our digital repair area which is under lock twenty four hours a day and seven days per week. There is no authorization of traffic in and out of this area other than D. M. Fenwick. These dials and watches which are complete will remain housed in this area until we receive our updated license from the NRC offices. Amendment to license number 37-03572-06 will enable us to distribute these dials and hands and complete timepieces pursuant to paragraph four of your memo.