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

37-03572

HAMILTON WATCH COMPANY, INC
941 WHEATLAND AVENUE
LANCASTER, PENNSYLVANIA 17604

License Number 37-03572-08E
Reference No.37-03572-07E

Pursuant to the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended (Public Law 93-438); 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"; Sections 32.14 and 32.22, 10 CFR Part 32, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material"; application dated May 2, 1983; and letters dated August 17, 1983 and January 30, 1984; a license is hereby issued to Hamilton Watch Company, Inc., 941 Wheatland Avenue, Lancaster, Pennsylvania to distribute watch modules, timepieces, hands and dials containing Hydrogen 3, modules or paint, to persons exempt from the requirements for a license pursuant to Sections 30.15 and 30.19, 10 CFR Part 30, or equivalent provisions of the regulations of any Agreement State.

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

CONDITIONS

1. This license shall expire on Februray 29, 1989.
2. This license does not authorize possession or use of licensed material.
3. This licensee is authorized to distribute watches, containing the watch modules and hydrogen 3 (tritium) sources identified below:

Watch Module	Tritium Source Supplier Source Model Number
1920	American Atomics Model 60307

4. Each watch shall contain not more than 200 millicuries of tritium.

5. The modules in watches specifically authorized for distribution by this license may be incorporated in other watches styles and distributed without further amendment of this license provided that prototypes of each watch style pass the test and inspections specified below prior to distribution of the watch style.

A. Test Procedures

At least five prototypes of each watch model will be subjected to the perfomnance testing indicated below. Each watch shall undergo all the test. The test shall be conducted in the order indicated below. Upon completion of each test, each watch shall be visually inspected for failure. In the absence of failure, the watch shall be subjected to the succeeding test. If there appears to be failure in any test, the watch shall be subjected to the immersion test indicated in A.6 for a positive indication of leakage before proceeding with the next test. Such watches shall also be subjected to the immersion test after completion of vibration testing. Failure of one or more of the prototypes to pass the testing and inspection requirements is cause for rejection of the watch model. Prototypes of the defective model shall not be retested until the defect is corrected.

1. Temperature Test

a. Equipment. The heating and cooling equipment shall have a test zone volume of at least five times the volume of the test watch. The temperature of the test chamber shall be determined by at least two recently calibrated temperature-measuring instruments, and the average of the readings shall be taken as the true temperature. If a gas or oil-fired furnace is used for the tempertaure test, an oxidizing atmosphere must be maintained at all times.

b. Procedure. All temperature test shall be performed in air. All test watches shall be held at or above 65 degrees Centrigrade for at least one hour and at or below minus 30 degrees Centigrade for at least one hour.

The test watches shall be allowed to remain in the test chamber until they return to ambient conditions. Watches shall be raised from ambient temperature to 65 degrees Centigrade within a five minute period. Watches shall be cooled from ambient temperature to minus 30 degrees Centigrade within 45 minutes.

2. Thermal Shock Test

a. Equipment. Same as A.1.a. Temperature Test.

b. Procedure. Watches shall be heated to 65 degrees Centigrade or greater and held at this temperature for at least 15 minutes. The watch shall then be transferred in 15 seconds or less to the cold chamber held at or below minus 30 degrees Centigrade and remain there for at least 15 minutes.

3. Reduced Pressure Test

a. Equipment. The apparatus used for the pressure test shall consist of a vacuum pump vented to an exhaust system and a sealed chamber having means for visual observation of the watch under test. The pressure gauge shall be calibrated within six months preceeding the test and should have a range at least 10 percent greater than the test pressure.

b. Procedure. The test watch shall be put into the chamber and exposed to a test pressure of 175 mm Hg (absolute) or less for four periods of 15 minutes each, the pressure being returned to atmospheric between each period.

4. Impact Test

   a. Equipment. A rigid steel plate mounted on an unyielding surface and a support or shelf for watches.

   b. Procedure. The watch support shall be mounted one meter above the steel plate. The watch to be tested will be placed on a support and, using any device or means which will not have a tendency to orient the watch, pushed from the support and allowed to free fall and impact the steel plate in a random manner. The procedure shall be repeated 20 times. The support shall then be positioned two meters above the steel plate. The watch shall be placed on the support and then pushed from the support and allowed to impact the steel plate in a random manner. The procedure shall be repeated twice.

5. Vibration Test

   a. Equipment. The equipment shall be capable of providing a simple harmonic motion having an amplitude of 0.075 centimeter (0.03") and a maximum total excursion of 0.15 centimeter (0.06"), the frequency being varied uniformly between the approximate limits of 10 (hertz) Hz and 55 Hz.

   b. Procedure. Test watches shall be subjected to the above simple harmonic motion for 60 minutes. The entire frequency range, between 10 Hz and 55 Hz and return to 10 Hz, shall be traversed in approximately one minute.

6. Immersion Test

   a. Equipment. Hot and cold baths.

b. Procedure. Immerse each test watch in a water bath, maintained at 0 degrees Centigrade, and allow it to remain for 15 minutes. The watch shall be transferred, within a one minute period, to a hot water bath maintained at or above 50 degrees Centigrade and allowed to remain for 15 minutes. Again, within one minute, the watch will be transferred to the cold bath and allowed to remain for 15 minutes. The cycle shall be repeated at least twice. The radioactivity in the hot and cold baths shall be determined. The total radioactivity in the liquids shall not exceed 50 nanocuries.

B. Inspection

The following procedures shall be used during the inspection of the prototype watches to determine compliance with the performance test requirements. Watches shall be evaluated to determine the ability of the watchcase and module design to maintain the integrity of the module and self-luminous source. At the end of the series of tests, the source must not be broken or punctured and remain fixed to the source pan, the source pan must remain secured in the watch module, and the watch module must remain secured in the watchcase. The tritium sources must not be accessible as a result of damage to either the watch module or the liquid crystal display.

1. Test watches shall be examined visually for any evidence of failure. Each watch shall be disassembled to verify that all components remain secured in the watchcase and within the module.

2. Each watch shall be individually soak tested for 24 hours in a volume of water equal to 10 times the volume of the watch. The watch shall be removed and the tritium activity in the water solution determined. The total activity in the water solution shall not exceed 50 nanocuries for each tritium light source in the watch, or 100 nanocuries per watch, whichever is less.

C. Marking

Watchcases shall be permanently marked to indicate the presence of tritium as authorized by specific amendment to this license. Watches shall also be permanently marked to identify the manufacturer.

D. Records

The licensee shall maintain records of the results of prototype testing, including the model numbers of the watch, watchcase, and watch module; the dated of the test; the name and signature of the individual who certified the test results; the actual test data; and the instrument used to evaluate tritium levels in the water baths.

E. Report

Within ten days of completion of prototype testing and inspection, the licensee shall file a report with the Chief, Materials Licensing Branch, Division of Fuel Cycle and Material Safety, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, identifying the model numbers of the watch, watchcase, and watch module.

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

Date MAR 07 1984

By Material Licensing Branch
Division of Fuel Cycle and Material Safety
Washington, D. C. 20555

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License No. _____ Control No. _____

Docket No. _____ _____ New License

Licensee _____ _____ Amendment

_____ Renewal

_____ Termination

Certification of Application Review for a Part 30, 40 and 70 License

I certify that I have reviewed the application dated June 22, 1986 as supplemented by any letters referenced in the license in accordance with guidance provided by the Office of Nuclear Material Safety and Safeguards applicable Standard Review Plan and associated checklist and have concluded that:

_____ A. If the licensee is being terminated, I have received adequate documentation to demonstrate that all radioactive materials and contamination possessed under this license has been properly removed and the licensee's facilities are suitable for unrestricted use, or that the radioactive material is covered by another valid license.

_____ B. For a new license, amendment, or renewal:

(1) The application is for a purpose authorized by the Act;
(2) The applicant's proposed equipment and facilities are adequate to protect health and minimize danger to life or property;
(3) The applicant is qualified by training and experience to use the material for the purpose requested in such manner as to protect health and minimize danger to life;
(4) The applicant satifies any special requirements contained in Part 32-35; and
(5) The application is not for commercial waste disposal by land burial or for any other activity which the Commission has determined will significantly affect the quality of the environment.

_____ _____
Reviewer Date

_____ _____
Reviewer Date

_____
Person Signing the License

A/75

2-11/3/82

CERTIFICATE

The timepieces in shipment marked with No. 2 of NBY 1017/1-2 containing 192 WATCHES movements with dials (watches) have been manufactured in accordance with the European Nuclear Energy Agency and International Atomic Energy Agency standards.

These timepieces do not contain more than the minimum quantity authorised by US NRC regulations.

Signed

pr. OMEGA SA
2500 BIENNE

A177

SWATCH SA
Jakob Stämpflistrasse 94
CH-2503 Biel

Telefon 032 42 95 80
Telex 931350 SWT CH
Telefax 032 42 53 68

swatch

SWATCH WATCH U.S.A. INC.
P.O. BOX 8500 (S-5100)

USA-PHILADELPHIA PA 19178

PRO FORMA - RECHNUNG
FACTURE PRO FORMA
INVOICE PROFORMA

Client / Kunde / Customer	Sous-cl. / Sub-Kd. / Sub-cust.	Votre commande / Ihre Bestellung / Your order	No grossiste / Grossist-Nr. / Wholesaler No	Date / Datum / Date	Compte / Konto / Account	Centre / Ko-Stelle / Costcenter	No Confirmation / Auftrags-Nr. / Order No	No Facture / Crédit / Rechnung / Gutschrift / Invoice / Credit Note
5753				24.10.86	5010	3270		00848

Designation / Bezeichnung / Description	Quantité / Menge / Quantity	Prix / Preis / Price		Montant / Betrag / Amount
REPORT				1444860.00
GB 111 5040- MOV. CASE STRAP BATTERY 15.25 0.90 0.45 0.90		17.50		1089200.00
500.111 GENTS-SWATCHES - GG 401 14880- GA 400 2880- GS 400 960- MOV. CASE STRAP BATTERY 15.25 0.90 0.45 0.90	18720	17.50		327600.00
500.121 GENTS-SWATCHES - GG 703 11120- GB 706 600- MOV. CASE STRAP BATTERY 15.25 0.90 0.45 0.90	11720			
COUNTRY OF ORIGIN : SWITZERLAND NET WEIGHT : 8819 KG GROSS WEIGHT : 9452 KG MARKINGS : 633 BOXES 6396 1-633 SHIPMENT : AIRFREIGHT COLLECT THROUGH JACKY MAEDER		17.50		205100.00
WE HEREBY CERTIFY THAT THE TRITIUM USED IN THE MANUFACTURE OF ANY ARTICLE COVERED BIS THIS INVOICE 1) HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE EUROPEAN NUCLEAR ENERGY AGENCY STANDARD AND THE INTERNATIONAL ATOMIC ENERGY STANDARD.				
REPORT				3066760.00

			Escompte / Skonto / Discount	Montant net / Nettobetrag / Net amount

SWATCH SA
Jakob Stämpflistrasse 94
CH-2503 Biel

Telefon 032 42 95 80
Telex 931 350 SWT CH
Telefax 032 42 53 68

swatch

SWATCH WATCH U.S.A. INC.
P.O. BOX 8500 (S-5100)

USA-PHILADELPHIA PA 19178

PRO FORMA - RECHNUNG
FACTURE PRO FORMA
INVOICE PROFORMA

Client / Kunde / Customer	Sous-cl. / Sub-Kd. / Sub-cust.	Votre commande / Ihre Bestellung / Your order	No grossiste / Grossist-Nr. / Wholesaler No.	Date / Datum / Date	Compte / Konto / Account	C/frais / Ko-Stelle / Costcenter	No Confirmation / Auftrags-Nr. / Order No.	No facture / Crédit / Rechnung / Gutschrift / Invoice / Credit Note
5755				24.10.86	5010	3270		00848

Désignation / Bezeichnung / Description	Quantité / Menge / Quantity	Prix / Preis / Price		Montant / Betrag / Amount
REPORT				3066760.00
THE TIMEPIECES DO NOT CONTAIN MORE THAN THE MAXIMUM QUANTITY AUTHORIZED BY NRC REGULATIONS. 2) THE TIMEPIECES DO NOT CONTAIN MORE THAN THE MAXIMUM QUANTITY AUTHORIZED BY SECTION 30.15 (A) 10 CFR30				
T O T A L FRS				3066760.00*

		Escompte / Skonto / Discount	Montant net / Rechnungsbetrag / Net amount
		08 / 60 --.--	3066760.00

...achment #6

BOCK + SCHUPP KG
ZIFFERBLÄTTERFABRIK

STEUBENSTRASSE 21
POSTFACH 240
TELEFON 07231-2855
FAX 7231-2E312
TELEX 783817

BOCK + SCHUPP KG · POSTFACH 240 · D-7530 PFORZHEIM

Messrs.
Hamilton Watch Co.
P.O.Box 3429
941 Wheatland Ave.

Lancaster,PA 17 6o6
U.S.A.

YOU MAY EFFECT PAYMENT THROUGH

VOUS POUVEZ NOUS FAIRE PARVENIR VOTRE PAIEMENT PAR

DEUTSCHE BANK AG. PFORZHEIM
(BLZ 666 700 06) KONTO-NR. 0 106 146

Wir versandten als / We shipped by: air freight

Paket Nr. / Parcel No: B&S 1220

INVOICE No. / RECHNUNG Nr. 2330 29.10.86

Auftrags- und Ref. Nr. / Order and Ref. no	Kaliber / Caliber	AV ZA / Quantity	Stückpreis / Price	DM / Total
"Dials for wrist watches,all	under 1.77 in width"	0	0,00	0,(
24978/24821/54.394	ETA955.112	85	4,10	348,(
25006/544.529	FHF581.lo1	250	3,60	900,(
25006/544.529	FHF581.lo1	170	3,60	612,(
25152/5o9.o35	ETA2750	90	1,60	144,(
25155/542.729	ETA978.oo2	1000	5,40	5400,(
25156/543.889	FHF2o2.oo1	500	4,30	2150,(
25156/544.o89	ETA2824.2	4	4,95	19,8
25172/54o.9o9	ETA578.oo2	500	5,65	2825,(
25174/535.289	ETA578.oo2	500	2,73	1365,(
252o2/28169-123	Ronda 572 - 2510 - 60.	100	11,60	1160,(
252o4/54641	FHF963.115	45	3,20	144,(
541.829/541.829	ETA978.oo1	250	2,60	650,(
				15718,3
package		1	141,70	141,7
			Deutsche Mark	15860,0

224 dials of this shipment have luminous dots,made of promethium 147.
These dials have been manufactured in accordance
with the Nuclear Agency and the International Atomic
Energy Agency standarts.
The dials do not contain more than the maximum quantity
authorized in Section 3o15A.4o CFR 3o6.

Firma
jacks Maeder
Luftfracht GmbH.
Postfach 3326

773o Vs-Schwenningen7[illegible].

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