NRC Form 374
(9-84)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		
1. Jay Stuart Haft Co., Inc.	3. License number	09-21481-02E
2. 3004 29th Avenue E. Bradenton, Florida 34282-1210	4. Expiration date	December 31, 1994
	5. Docket or Reference No.	030-31208; 09-21481-01E

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Hydrogen 3	A. Sealed source (MB-Microtec AG Models T-4192-1, T-4149-1 and T-4188-1)	A. Not applicable (Refer to Condition 10)

9. Authorized use

A. Distribution of Marine Compasses specified in Condition 10., to persons exempt from the requirements for a license pursuant to Section 30.19, 10 CFR Part 30, or equivalent provisions of the regulations of any Agreement State, when such devices have been manufactured pursuant to Section 32.22, 10 CFR Part 32.

CONDITIONS

10. Each device distributed pursuant to this license shall contain not more than the Hydrogen 3 listed in the following table:

Product Model	Maximum Quantity per unit
SILVA AB Marine Compass Type 70/UNB	342 millicuries
Type 60	55 millicuries
Type 80B	55 millicuries

11. Devices containing licensed material shall be labeled in accordance with 10 CFR Part 32.22.

12. This license does not authorize possession or use of licensed material.

13. The licensee shall file periodic reports as specific in Section 32.25(c) 10 CFR 32.

All copy
sent to RII

NRC Form 374A (5-84) U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number: 09-21481-02E

Docket or Reference number: 030-31208

14. The licensee may distribute only from its facility located at 3004 29th Avenue E., Bradenton, Florida.

15. Each device distributed under this license shall be manufactured, tested, and labeled in accordance with statements, representations, and procedures contained in application dated June 14, 1989; and letters dated June 29, 1989, August 7, 1989, September 21, 1989, and undated letter received December 8, 1989 with enclosures thereto. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DATE: DEC 22 1989

BY: J. Bruce Carrico

Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS
Washington, DC 20555

NRC HEADQUARTERS

MATERIAL LICENSE TERMINATION/RETIREMENT FORM

(To be completed only by Headquarters Section Leader or person authorized to sign licenses)

LICENSEE NAME Jay Street Hoist Co. Inc. LICENSE NO. 09-21481-01E

ADDRESS 3004 29th Ave. E. DOCKET NO. 030-20841

Bradenton FL EXPIRATION DATE May 31, 1989

LICENSE IS EXPIRED X BEING TERMINATED _____

Basis for ~~termination~~/retirement:

1. Superseded by License No. 09-21481-02E

Do not Transfer documents to new license folder. Date Transferred _____

By _____

2. Other _____

_____

_____

DATE DEC 22 1989 Authorized Signature

BY J. Bruce Carrico

ACTION BY IRM:
Retire old license.

ACTION BY IMOB:
Change status in computer.
Status changed to 04 on 12/22/89
by _____.

DISTRIBUTION:
IRM - Retired Folder
License Fee Management Branch, OC/DAF
Region Licensing Section

SOURCE AND DEVICE EVALUATION TECHNICAL ASSISTANCE REQUEST

TO: STEVEN BAGGETT, NMSS/IMNS, Mail Stop OWFN-6H3

FROM: _____ REGION: I II III IV V (HQ) (Circle One)

FTS PHONE NO. _____ DATE: _____

APPLICANT Jay Stuart Hoff LETTER/APPLICATION DATE 6/11/89

MAIL CONTROL NO.(S) 020833 CO LICENSE NO.(S) _____

REQUEST ACTION (CHECK APPROPRIATE BOX)

( ) SOURCE REVIEW ( ) DEVICE REVIEW ( ) CUSTOM

( ) AMENDMENT OF REGISTTRATION SHEET NO. _____

( ) OTHER: _____

****

FOR NMSS/IMAB USE ONLY CONTROL NO. _____ MODELS: _____

DATE RECEIVED _____ REVIEWER _____

TYPE OF ACTION (INDICATE NO. OF EACH ON THE LINES)

( ) SOURCE REVIEW ____ ( ) DEVICE REVIEW ____

( ) FORMAL ( ) AMENDMENT ( ) CUSTOM

( ) NO LICENSING ACTION REQUIRED

8/7 Per Mike Lamastra a Device Review is required.

TOTAL REVIEWER HOURS SPENT ON EVALUATION ____ DATE COMPLETED _____

NOTES: _____ DEFICIENCY LETTER ___ DATE COMPLETED _____

DEFICIENCY PHONE CALL ____ DATE MADE _____

RESPONSE TO DEFICIENCY _____

TYPING DRAFT __ IN ___ OUT ___ FINAL ___ IN ___ OUT ___

****

FOR ARM/LFMB USE ONLY

FEES THAT HAVE BEEN PAID FOR : (INDICATE NO. OF EACH ACTION ON THE LINES)

( ) SOURCE REVIEW ___ (1) DEVICE REVIEW ___ ( ) FORMAL ___

( ) AMENDMENT ___ ( ) ARM/LFMB ___ ( ) CUSTOM ___

NOTES: _____ DATE TO ARM/LFMB: _____

DATE RETURNED: 8/14/89

SIGNED: S. Lombardo

DATE: 8/14/89

DEC 22 1989

Jay Stuart Haft Co., Inc.
ATTN: Mr. Jeffrey Scott
General Operations Manager
3004 29th Avenue East
Bradenton, Florida 33507

Gentlemen:

Enclosed please find License No. 09-21481-02E which replaces expired License No. 09-21481-01E.

We have decided to issue your NRC distribution license based upon the discussion in your undated letter received by us in December which described your efforts to obtain a State of Florida possession license. Note that this NRC license does not authorize possession or importation of the radioactive products you wish to distribute. (Section 110.27 of 10 CFR Part 110 provides a general license which authorizes persons specifically licensed to possess to import radioactive material.)

We have notified the State of our intent to issue your NRC license. In order to complete your license file, we would appreciate receiving a copy of your Florida license when issued. When providing the copy please refer to this letter and to Mail Control Number 020833. If you have questions, please feel free to call me at (301) 492-0634.

Sincerely,

J. Bruce Carrico
Commercial Section
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosure: As stated

Distribution

JBCarrico	IMNS Central Files	NRC File Center
License File	NMSS r/f	JEGlenn
MLamastra		

OFC: IMAB

NAME:JBCarrico:ht

DATE:12/20/89

OFFICIAL RECORD COPY

Document Name:
HAFT LTR

Requestor's ID:
THOMPSON

Author's Name:
bcarrico

Document Comments:

received
12/8/89
JBC

JAY STUART HAFT CO. INC MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

United States Nuclear Regulatory Commision
Mr. J. Bruce Carrico
Medical, Academic and Commercial Use
Safety Branch
Division of Industrial and Medical
Nuclear Safety, NMSS
Washington, DC 20555

Dear Mr. Carrico:

This letter refers to our application and earlier letters requesting a new license to replace expired license No. 09-21481-01E.

1.) Attached is the information in letter form of our original submission for license in March, 1984. We have evaluated this submission and wish to make the following updates:

A.) Addition of the type 80B compass, as per Registration certificate # NR-410-D-101-E (attached).

B.) Correction of our office phone number to 813-746-7161 and our mailing zip code to 34282-1210.

The balance of the information contained in our original submission of March 19, 1984 would still be correct.

2.) We have been informed by Dr. Paul Vause at the Department of Health and Rehabilitative Services that we are now only lacking the N.R.C. license for them to submit out State Material Possession license. Although I believe we have been assigned license # 1638-1 Category 3P by H.R.S., we do not have a current license in our possession. If you have further questions in regards to this matter, please contact Dr. Vause at 904-487-2437.

3.) Enclosed please find complete product transfer reports that cover from the year ending June 30th, 1985 to June 30th, 1989.

030-31208

member

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

To the best of our knowledge, all of the aforementioned are true and correct and satisfy the points you discussed in your letter of October 23, 1989 and our subsequent phone conversation.

Please let me know if any further information or clarification of these points are required.

Very sincerely yours,

Jeffrey Scott
General Operations Manager
JAY STUART HAFT CO., INC.

enclosures: A.) 7/26/89 Letter from H.R.S.
B.) 3/19/84 Application letter.
C.) 10/05/89 Registration letter.
D.) 10/23/89 Review letter.
E.) Product transfer reports..

JS/jt

TELEPHONE 813/746-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

A.)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

July 26, 1989

Renee Dunn, Office Manager
Jay Stuart Haft Company, Inc.
P.O. Box 11210
Bradenton, FL 33507

RE: State of Florida Radioactive
Materials License Number 1638-1

Dear Ms. Dunn:

We acknowledge receipt of your letter dated July 12, 1989, responding to our request for additional information concerning the renewal of the above referenced license. While reviewing this information, several items were noted that will require further clarification:

1. Please be advised that the radioactive materials license issued to you by the U.S. Nuclear Regulatory Commission is expired. Please submit a copy of your renewed radioactive materials license. This office cannot renew the above referenced license until receipt of this copy.

2. Please be advised that the Sylva type 80 compass must appear on your U.S. Nuclear Regulatory Commission radioactive materials license in addition to the other two models of compasses that you were previously licensed to possess and distribute. If this new model compass does not appear on this license, we will not be able to include it on your State of Florida Radioactive Materials License.

Please respond to this letter within thirty (30) days, as further evaluation of your request is pending receipt of the above information. If we can be of any assistance, please call us at (904) 487-2437.

Sincerely,

Paul E. Vause, Jr.
Public Health Physicist
Radioactive Materials Program
Office of Radiation Control

PV/ss

FAX 904-487-1755

B.)

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 33507 U.S.A.

March 19, 1984

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Nuclear Safeguards
Washington, DC 20555

Attention: Steven L. Baggett
Material Certification and Procedures Branch

Gentlemen:

Re: Jay Stuart Haft Co. Application, Control No. 15935

This is to request revision of the above application for obtainment of a specific license under Section 32.14, 10 CFR 32, as stated in our letter of September 29, 1983, to Section 32.22, 10 CFR 32. This request is made for the purpose of your consideration of both types of SILVA Compasses under Section 32.22.

In further support of this application, the following additional information has been supplied by the manufacturer of Type 60 and Type 70/UNB Compasses, SILVA Sweden AB, Kuskvägen 4, S-191 47, Sollentuna, Sweden.

1. Description of Product - Type 60 and Type 70/UNB Compasses are safety devices intended for directional and navigational purposes. The incorporation of sealed, gaseous tritium light sources (GTLSs) in these devices makes information available to the user under conditions of darkness. The GTLSs are contained within hermetically sealed "globes" or "capsules", thus, doubly encapsulated. The GTLSs are not readily

TELEPHONE 813/753-6446 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Steven L. Baggett, Material Certification and Procedures Branch
March 19, 1984

accessible to the user during normal conditions of handling and use of the devices.

2. Quantity and Type of GTLSs in each device - Please refer to Page one of our letter of September 29, 1983.

3. Chemical and Physical Form - The tritium gas is obtained from Oak Ridge National Laboratory by the Vendor, MB-MICROTEC AG, Bern, Switzerland for incorporation in the referenced GTLSs.

4. Details of Construction and Design - The compasses have been designed to provide resistance to severe environmental conditions and retain instrument functionability required in visual presentation of information to the user. Experience has shown that the units retain their integrity under environmental conditions associated with the extended usage.

5. Expected Useful Life - Both type 60 and 70/UNB compasses have expected useful lives of 12 - 14 years.

6. Prototype Testing - Two compasses each of Type 60 and Type 70/UNB were tested by Packforsk Service AB, Stockholm, Sweden, in order to establish a performance classification level per American National Standard N540. It was found, as indicated by the attached report, that the following rating could be assigned: T2GC1222122

U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Steven L. Baggett, Material Certification and Procedures Branch
March 19, 1984

It should be noted from the attached Packforsk report that, while no impact tests were performed by this testing company, per ANSI N540, other drop tests have been and are performed at SILVA on production lots of both types of compasses, as stated in a later section, 8.4.1, of this letter.

7. Potential Radiation Dose Commitment - In the evaluation of potential radiation dosage resulting from normal handling and use of these devices as well as for release of tritium as a result of damage to the GTLSs, the following documents are useful: NUREG/CR-2015, "Potential Doses from Wrist Watches Containing Tritium Gas" and NUREG/CR-0150, "Estimates of Internal Dose Equivalent to 22 Target Organs for Radionuclides Occurring in Routine Releases from Nuclear Fuel Facilities."

Based on the quantity of tritium in each of the referenced devices and the estimated number of compasses to be distributed annually as given in previous correspondence and the data given in the referenced NUREG/CR-7015, any dose commitments as a result of normal handling and usage of the designated SILVA Compasses, as well as that resulting from a maximum credible accident, will meet the criteria set forth in Section 32.23, 10 CFR 32. It is highly unlikely that the maximum permissible dose levels will be exceeded in any circumstance resulting from damage to either type of SILVA Compass.

U. S. Nuclear Regulatory Commission
Washington DC 20555

Attention: Steven L. Baggett, Material Certification and Procedures Branch
March 19, 1984

8. Quality Control Procedures

8.1 Compass components - all plastic parts are obtained by SILVA Sweden from a subsidiary company and are checked upon receipt at SILVA for any flaws, conformance to specifications and overall quality of fabrication.

8.2 GTLSs - upon receipt of GTLS at SILVA Sweden, all units are checked for quality of workmanship, particularly glass seals, dimensions, intensity and uniformity of brightness. A leak test report from the vendor, MB-MICROTEC, is required with each shipment. The leak tests are performed by the vendor in accordance with Section 8.3.2, ANSI N540 on all GTLSs. SILVA Sweden has indicated that, to this date, it has not been necessary to reject any lot of GTLSs supplied by MB-MICROTEC.

8.3 Test procedures during manufacture of the compasses - A number of quality assurance tests are performed at SILVA including:

8.3.1 inspection of the ultrasonic welds on the plastic "globes" or "capsules." After filling and sealing the liquid in the "Capsule", all such units are subjected to the following tests:

8.3.2 heating at $50^{\circ}C^{+0^{\circ}C}_{-5^{\circ}C}$ for a minimum of 4 hours. Upon completion of this heat test, the following low temperature tests are conducted for each type of compass:

U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Steven L. Baggett, Material Certification and Procedures Branch
March 19, 1984

8.3.3 Cold temperature tests:

Type 60, $-40^{\circ}C^{+0^{\circ}C}_{-5^{\circ}C}$ for a minimum of 4 hours.

Type 70/UNB $-30^{\circ}C^{+0^{\circ}C}_{-5^{\circ}C}$ for a minimum of 4 hours.

Upon return of the units to room temperature, all capsules are visually examined for physical integrity, including the GTLSs. The presence of any bubble(s) in the capsule results in immediate rejection of the capsule.

8.3.4 After final mounting of the capsule in the instrument, each compass is placed in a dark room for a minimum of 24 hours and a check for luminance intensity and uniformity of the GTLSs is made by a dark-adapted inspector. Any glass fracture or flaw in the GTLS(s) will result in the loss of brightness in the GTLS.

8.3.5 Final inspection of each type of compass includes other tests such as: magnetic moment, magnetic deviation, damping time, freedom from imperfections and dimensional checks. Any rejects found during these tests may be used in the following tests;

8.4 Destructive tests

8.4.1 Drop tests are performed on either packaged or unpackaged compasses from heights of 0.6, 1 and 2 meters, with impact on either a linoleum-covered concrete floor or a wooden

U. S. Nuclear Regulatory Commission
Washington DC 20555

Attention: Steven L Baggett, Material Certification and Procedures Branch
March 19, 1984

surface. Note: It has been found that while the plastic capsule may crack or fracture upon impact, the integrity of the GTLSs are unaffected, even following a 2-meter drop. The linoleum and wood surfaces are intended to simulate boat conditions.

8.4.2 Other environmental tests have been conducted by SILVA on the roof of their plant over extended periods to check on possible breakdown of the devices or components under the influence of such factors as solar radiation (ultra violet), rain, snow, ice and air pollution. These tests are conducted under temperature ranges experienced in Sweden in all seasons of the year.

I trust this additional information will be sufficient for review of the revised application.

Sincerely,

Jay Stuart Haft
Jay Stuart Haft Co., Inc.

JSH/tk

Enclosures

C.)

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

OCT 5 1989

Mr. Jeffrey Scott
General Operations Manager
Jay Stuart Haft Co., Inc.
3004 29th. Avenue East
Bradenton, FL 33507

Dear Mr Scott:

Based on the information and test data submitted in your letters dated September 21, 1989, August 7, 1989, and Application dated June 14, 1989, we conclude that Type 80B Marine compass is acceptable for licensing purposes in accordance with the conditions of the enclosed certificate of registration.

Please read over this certificate in its entirety and notify us immmediately if there are any errors.

If you have any questions, please contact me. My phone number is (301) 492-0511.

Sincerely,

Thomas W. Rich
Commercial Section
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and Medical
Nuclear Safety, NMSS

Enclosure: Registration Certificates NR-410-D-101-E

cc: Glenda Jackson w/encl.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: OCT 5 1989 PAGE: 1 of 5

DEVICE TYPE: Marine Compasses

MODEL: 70/UNS, 60, 80B

DISTRIBUTOR: Jay Stuart Haft Co., Inc.
Marine Equipment Distributors
P.O. Box 11210
3004 29th. Avenue East
Bradenton, FL 33507

MANUFACTURER: SILVA
Sweden AB
Kuskvagen 4, S-191-47
Sollentuna, Sweden

SEALED SOURCE MODEL DESIGNATION: MB-Microtec AG (MB-M), Bern Switzerland
Models T-4192-1, T-4149-1, and T-4188-1

ISOTOPE: Hydrogen-3
Hydrogen-3
Hydrogen-3

MAXIMUM ACTIVITY: 342 millicuries (Model 70/UNB)
55 millicuries (Model 60)
55 millicuries (Model 80B)

LEAK TEST FREQUENCY: Not Required

PRINCIPAL USE: (W) Luminous Products

CUSTOM DEVICE: ____ YES __X__ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: OCT 5 1989 PAGE: 2 of 5

DEVICE TYPE: Marine Compasses

DESCRIPTION:

Type 60, 80B, and Type 70/UNB Compasses are safety devices intended for directional and navigational purposes. The incorporation of sealed, gaseous tritium light sources (GTLSs) in these devices makes information available to the user under conditions of darkness. The GTLSs are epoxy mounted within hermetically sealed "globes", thus, doubly encapsulated. The GTLSs are not readily accessible to the user during normal conditions of handling and use of the devices.

The Type 70/UNB compass contains four GTLSs which are supplied by SILVA by MB-Microtec AG (MB-M), Bern, Switzerland.

Part numbers and quantities are:

Quantity	SILVA P/N	MB-M P/N	Tritium Content (Nominal)
2	3060	T-4191-1	140 millicuries (mCi) each
2	2945	T-4149-1	31 mCi each

Total tritium content of type 70/UNB - 342 mCi maximum

The Type 60 and 80B compasses contain one GTLS described as follows:

Quantity	SILVA P/N	MB-M P/N	Tritium Content (Maximum)
1	3045	T-41881	55 mCi

Total tritium content of type 60 - 55 mCi maximum

Type 80B compasses are an improved version of the type 60. Type 80 is constructed with a stronger outer case and has additional rubber shock-resistance.

LABELING:

The compasses are imprinted with the words "Contains Tritium-3H" and instructions to return damaged or rejected compasses to the manufacturer.

DIAGRAM: See Attachments 1, 2, 3.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: OCT 15 1989 PAGE: 3 of 5

DEVICE TYPE: Marine Compasses

CONDITIONS OF NORMAL USE:

The compasses will be used in outdoor environmental conditions by outdoor enthusiasts. The compasses are expected to remain usable up to 14 years. This is the point at which the light source will no longer perform its function.

PROTOTYPE TESTING:

Two compasses each of Type 60, 80B and Type 70/UNB were tested by Packforsk Service AB, Stockholm, Sweden, in order to establish a performance classification level per American National Standard N540. It was found that the following rating could be assigned: T2GC1222122. Additionally, the manufacturer drop tested Type 60 and type 80B compasses from a height of two meters. SILVA found that the plastic capsule cracked upon impact but the GTLSs remained intact. Furthermore, SILVA mounted compasses on the roof of their plant for extended periods to check breakdown of devices or components under the influence of ultra violet light, rain, snow, ice and air pollution.

EXTERNAL RADIATION LEVELS:

No detectable radiation from any accessible surface of the device.

QUALITY ASSURANCE AND CONTROL:

The manufacturer, SILVA, inspects 100% of the plastic parts and light sources for conformance to specifications and quality of fabrication. During the manufacturing of the compass, SILVA also performed spot inspection on each batch. This includes inspection of plastic "globe" weld, heat tested to 50°C, cold temperature tested to -40°C, check of final mounting and functional tested prior to distribution. A copy of the testing data on each batch is supplied to Jay Stuart Haft Company, Inc. for incorporation into their files.

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- The devices shall be distributed to persons exempt from the requirements for a license pursuant to Section 30.19, 10 CFR 30.
- This registration sheet and the information contained within the references shall not be changed or transferred without the written consent of the NRC.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: OCT 5 1989 PAGE: 4 of 5

DEVICE TYPE: Marine Compasses

SAFETY ANALYSIS SUMMARY

Based on our review of the information and test data cited below, we conclude that the product is designed and manufactured such that:

- In normal use and disposal of a single exempt unit, it is unlikely that the external radiation dose in any one year, or the dose commitment resulting from the intake of radioactive material in any one year, to a suitable sample of the group of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the dose to the appropriate organ as specified in Column I of the following table.

- In normal handling and storage of the quantities of exempt units likely to accumulate in one location during marketing, distribution, installation, and servicing of the product, it is unlikely that the external radiation dose in any one year, or the dose commitment resulting from the intake of radioactive material in any one year, to a suitable sample of the group of of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the dose to the appropriate organ as specified in Column II of the following table.

- It is unlikely that there will be a significant reduction in the effectiveness of the containment, shielding, or other safety features of the product from wear and abuse likely to occur in normal handling and use of the product during its useful life.

- In use and disposal of a single exempt unit, or in handling and storage of the quantities of exempt units likely to accumulate in one location during marketing, distribution, installation, and servicing, the probability is low that the containment, shielding, or other safety features of the product would fail under such circumstances that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column III of the following table and the probability is negligible that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column IV of the following table.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

DEVICE TYPE: Marine Compasses

Table of Organ Doses
In Rems

Part of Body	Column I	Column I	Column II	Column IV
Whole body, head and trunk; active blood-forming organs; gonads; or lens of eye	0.001	0.01	0.5	15
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than 1 square centimeter	0.015	0.15	7.5	200
Other organs	0.003	0.03	1.5	50

Therefore, we deem that these compass designs are acceptable for licensing purposes. Furthermore, we conclude that these compasses would be expected to maintain their containment integrity for normal conditions of use and accidental conditions which might occur during uses specified in this certificate.

REFERENCES:

The following supporting documents for the compass designs are hereby incorporated by reference and are made a part of this registry document:

° Jay Stuart Haft Co., Inc. letters dated September 28, 1983 and March 19, 1984, June 14, 1984, June 29, 1989, August 7, 1989, September 21, 1989, and enclosures thereto.

ISSUING AGENCY:

U.S. NUCLEAR REGULATORY COMMISSION

DATE: OCT 5 1989 REVIEWER: [signature]

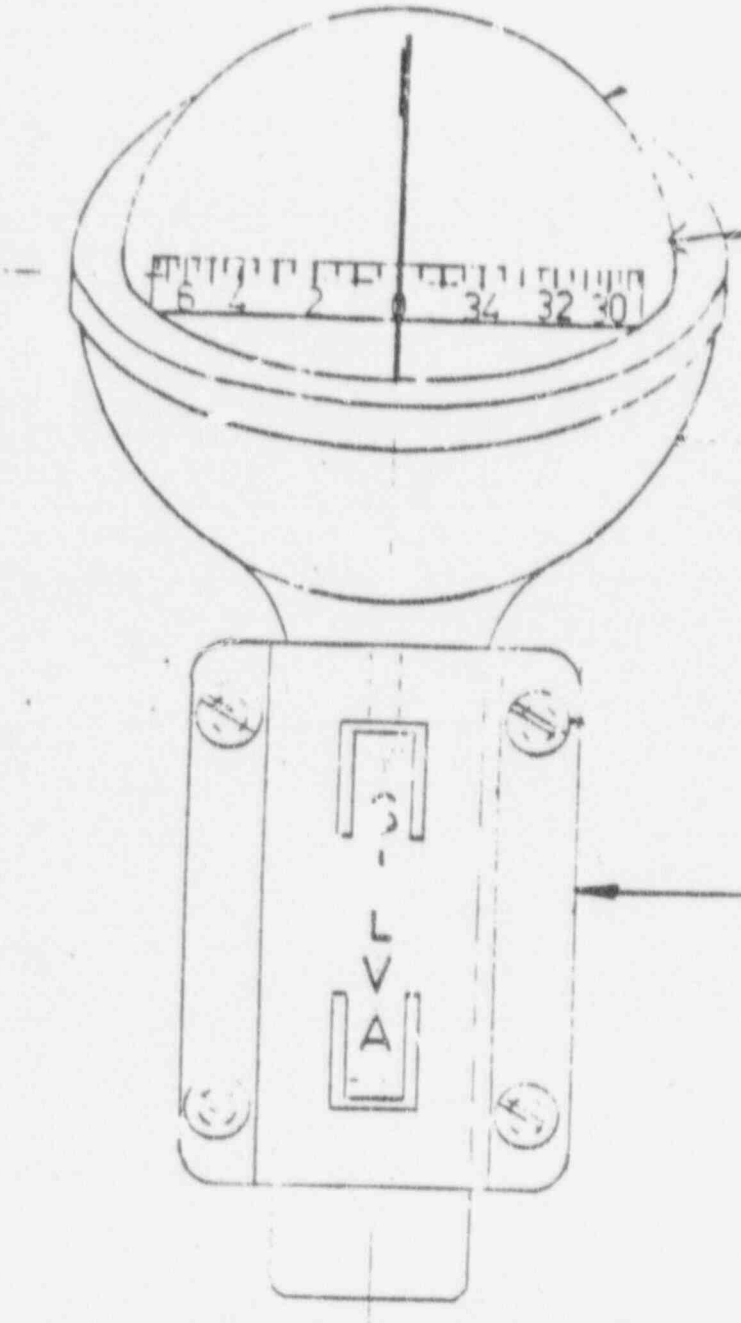
DATE: OCT 5 1989 CONCURRENCE: [signature]

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E

DATE: OCT 5 1989 ATTACHEMNT 1

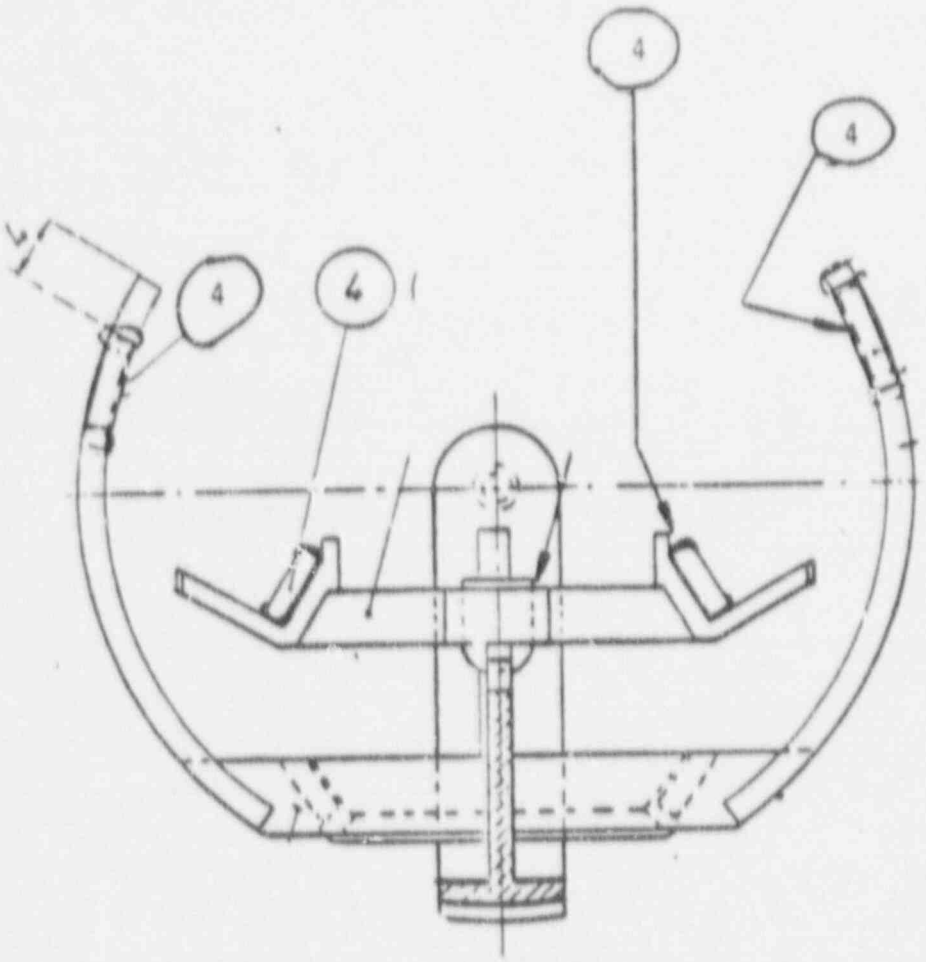
Model 70/UNB
Overall view
(used primary for Marine Compass Applications)



REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SOURCE

NO: NR-410-D-101-E DATE: OCT 5 1989 ATTACHMENT 2

Model 70/UNB



Assembly Cross section View

4* Light Sources

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SOURCE

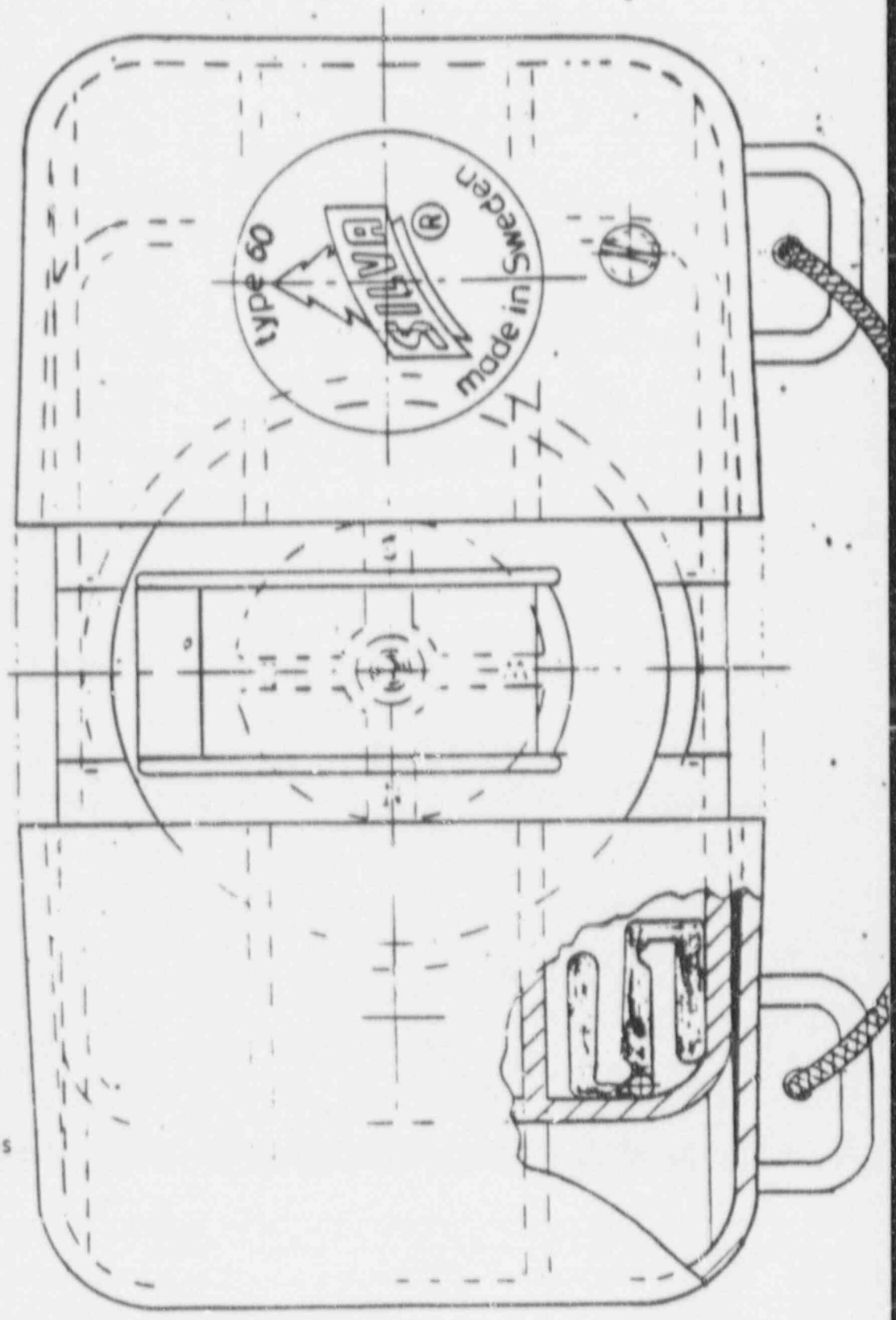
NO:

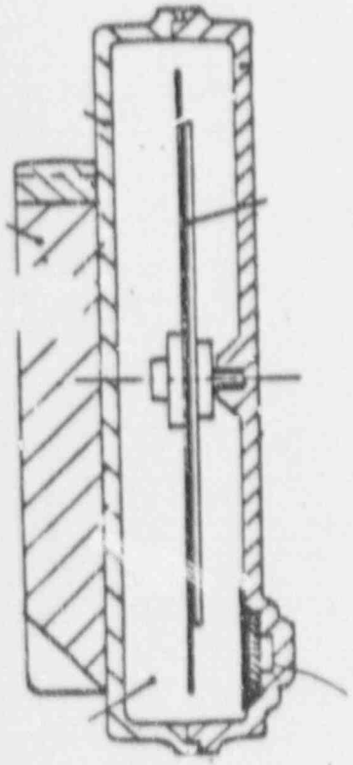
DATE: OCT 5 1989

ATTACHMENT 3

Model 60

Overall View



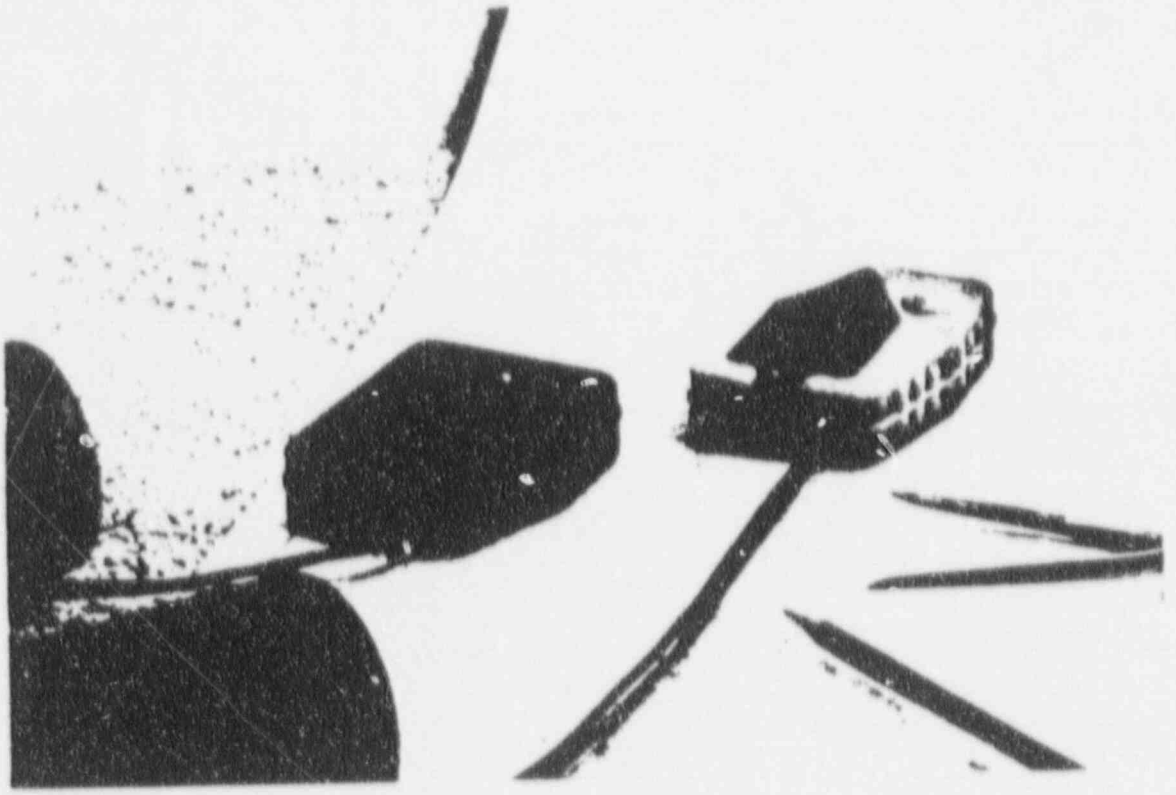


Cross Sectional View

Light Sources

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: OCT 5 1989 ATTACHMENT 4



Type 80B

D.)

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

OCT 2 3 1989

Jay Stuart Haft Co., Inc.
ATTN: Mr. Jeffrey Scott
General Operations Manager
3004 29th Avenue East
Bradenton, FL 33507

Gentlemen:

This refers to your application and letter dated June 14, 1989, requesting a new license to replace expired License No. 09-21481-01E.

As Tom Rich of our staff discussed with you and I discussed with your office manager, because you allowed your NRC license to expire we must treat your submission as a request for a new license, without regard to previously submitted information. Therefore, we will need complete, up-to-date information concerning the products you wish to distribute pursuant to Section 32.22, 10 CFR Part 32. We find that we will need the following additional information to complete our review of your request:

1. You should submit complete information for your products as specified in Sections 32.22 and 32.23 of 10 CFR Part 32. Resubmission of the information you provided in your March 19, 1984 letter to NRC in support of your original license application would be satisfactory, provided the information is still current and up-to-date.

2. Paragraph 32.22(a)(1) specifies that an applicant must satisfy the general requirements for possession of licensed material, therefore also please provide us with a copy of your current Florida possession license.

3. Paragraph 32.25(c)(2) of 10 CFR Part 32 requires that a product transfer report be submitted at the time of license renewal. In reviewing your license file, we were only able to find a report for 1986 and a letter dated July 13, 1989 with data for the year ending June 30, 1989. Therefore, you should submit product transfer information from the date License No. 09-21481-01E was issued (May 23, 1984) through 1985 and for 1987 and 1988. Please note that this information can be complied into a single report (i.e., it does not have to broken down by year).

Our review of your application will continue upon receipt of the above information. Please reply within 30 days, in duplicate, and reference Mail Control No. 020833. If you have questions, please feel free to call me at (301) 492-0634.

Sincerely,

J. Bruce Carrico

J. Bruce Carrico
Commercial Section
Medical, Academic and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosures:
1. 10 CFR Part 30
2. 10 CFR Part 32

E.)

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

July 24, 1985

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Nuclear Safeguards
Washington, D.C. 20555

Attention: Steven L. Baggett

ANNUAL REPORT FOR MATERIALS LICENSE #09-21481-01E
FOR THE YEAR ENDING JUNE 30, 1985.

Product Model -- SILVA AB Marine Compass
Type 60
55 Millicuries

82 Sold -- 4,510 Millicuries

Product Model -- SILVA AB Marine Compass
Type 70UNB
342 Millicuries

187 Sold -- 63,954 Millicuries

Respectfully submitted,

Renee Dunn

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC.

CC: Region II
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
101 Marietta St., Suite 3100
Atlanta, GA 30303

TELEPHONE 813/746-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

July 8, 1986

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Nuclear Safeguards
Washington, D.C. 20555

Attention: Steven L. Baggett

ANNUAL REPORT FOR MATERIALS LICENSE #09-21481-01E
FOR THE YEAR ENDING JUNE 30, 1986.

Product Model -- SILVA AB Marine Compass
Type 60
55 Millicuries

84 Sold -- 4,620 Millicuries

Product Model -- SILVA AB Marine Compass
Type 70UNB
342 Millicuries

227 Sold -- 77,634 Millicuries

Respectfully submitted,

Renee Dunn

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC.

CC: Region II
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
101 Marietta St., Suite 3100
Atlanta, GA 30303

TELEPHONE 813/748-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

July 30, 1987

U.S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Nuclear Safeguards
Washington, D.C. 20555

Attn: Steven L. Baggett

ANNUAL REPORT FOR MATERIALS LICENSE #09-21481-01E
FOR THE YEAR ENDING JUNE 30, 1987.

Product Model--SILVA AB Marine Compass
Type 60
55 Millicuries

79 Sold -- 4,345 Millicuries

Product Model--SILVA AB Marine Compass
Type 70UNB
342 Millicuries
241 Sold
82,422 Millicuries

Respectfully submitted,

Renée Dunn

Renée Dunn
Office Manager

JAY STUART HAFT CO., INC.

CC: Region II
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
101 Marietta St., Suite 3100
Atlanta, GA 30303

TELEPHONE 813/748-7161 TELEX 808776 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

July 15, 1988

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Nuclear Safeguards
Washington, D. C. 20555
Attn: Steven L. Baggett

ANNUAL REPORT FOR MATERIALS LICENSE #09-21481-01E
FOR THE YEAR ENDING JUNE 30, 1988.

Product Model--SILVA AB Marine Compass
Type 60
55 Millicuries

114 Sold -- 6,270 Millicuries

Product Model--SILVA AB Marine Compass
Type 70UNB
342 Millicuries

169 Sold -- 57,798 Millicuries

Respectfully submitted,

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC.

CC: Region II
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
101 Marietta St., Suite 3100
Atlanta, GA 30303

TELEPHONE 813/746-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

July 13, 1989

U.S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and
Nuclear Safeguards
Washington, D.C. 20555

Attn: Steven L. Baggett

Annual Report for Materials License #08-21481-01E
for the year ending June 30, 1989

Product Model--SILVA AB Marine Compass
Type 80 (Improved Modification of Type 60)
55 Millicuries

27 Sold -- 1485 Millicuries

Product Model--SILVA AB Marine Compass
Type 70UNB
342 Millicuries

99 Sold -- 33,858 Millicuries

Respectfully submitted,

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC.

CC: Region II
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
101 Marietta St., Suite 3100
Atlanta, GA 30303

TELEPHONE 813/746-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

OCT 2 8 1989

Jay Stuart Haft Co., Inc.
ATTN: Mr. Jeffrey Scott
General Operations Manager
3004 29th Avenue East
Bradenton, FL 33507

Gentlemen:

This refers to your application and letter dated June 14, 1989, requesting a new license to replace expired License No. 09-21481-01E.

As Tom Rich of our staff discussed with you and I discussed with your office manager, because you allowed your NRC license to expire we must treat your submission as a request for a new license, without regard to previously submitted information. Therefore, we will need complete, up-to-date information concerning the products you wish to distribute pursuant to Section 32.22, 10 CFR Part 32. We find that we will need the following additional information to complete our review of your request:

1. You should submit complete information for your products as specified in Sections 32.22 and 32.23 of 10 CFR Part 32. Resubmission of the information you provided in your March 19, 1984 letter to NRC in support of your original license application would be satisfactory, provided the information is still current and up-to-date.

2. Paragraph 32.22(a)(1) specifies that an applicant must satisfy the general requirements for possession of licensed material, therefore also please provide us with a copy of your current Florida possession license.

3. Paragraph 32.25(c)(2) of 10 CFR Part 32 requires that a product transfer report be submitted at the time of license renewal. In reviewing your license file, we were only able to find a report for 1986 and a letter dated July 13, 1989 with data for the year ending June 30, 1989. Therefore, you should submit product transfer information from the date License No. 09-21481-01E was issued (May 23, 1984) through 1985 and for 1987 and 1988. Please note that this information can be complied into a single report (i.e., it does not have to broken down by year).

OCT 2 3 1989

Our review of your application will continue upon receipt of the above information. Please reply within 30 days, in duplicate, and reference Mail Control No. 020833. If you have questions, please feel free to call me at (301) 492-0634.

Sincerely,

Original Signed By:

J. Bruce Carrico
Commercial Section
Medical, Academic and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosures:
1. 10 CFR Part 30
2. 10 CFR Part 32

DISTRIBUTION w/o encls

NMSS R/F	NRC File Center	IMAB R/F
JEGlenn	MLamastra	IMNS Central File
JBCarrico		

OFC: IMAB	:	:	:	:	:	:
NAME:JBCarrico:jbc/ht	:	:	:	:	:	:
DATE:10/23/89	:	:	:	:	:	:

OFFICIAL RECORD COPY

Bruce,

After speaking with Jeffrey Scott on 10/2/89, (11:00 AM) he said that a Model 80B is more correct for the Model #. Therefore in the license application, everywhere they reference Type 80, replace it with Type 80B.

Thanks

J.R.

P.S. I have opposed the SSD resolution and am giving you a copy of the associated information. The information may assist you in processing the license action.

Same as the info that was sent to you earlier (June 14, 1989)

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

Mr. Jeffrey Scott
General Operations Manager
Jay Stuart Haft Co., Inc.
3004 29th. Avenue East
Bradenton, FL 33507

Dear Mr Scott:

Based on the information and test data submitted in your letters dated September 21, 1989, August 7, 1989, and Application dated June 14, 1989, we conclude that Type 80B Marine compass is acceptable for licensing purposes in accordance with the conditions of the enclosed certificate of registration.

Please read over this certificate in its entirety and notify us immmediately if there are any errors.

If you have any questions, please contact me. My phone number is (301) 492-0511.

Sincerely,

Thomas W. Rich

Thomas W. Rich
Commercial Section
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and Medical
Nuclear Safety, NMSS

Enclosure: Registration Certificates NR-410-D-101-E

cc: Glenda Jackson w/encl.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: PAGE: 1 of 5

DEVICE TYPE: Marine Compasses

MODEL: 70/UNS, 60, 80B

DISTRIBUTOR:

Jay Stuart Haft Co., Inc.
Marine Equipment Distributors
P.O. Box 11210
3004 29th. Avenue East
Bradenton, FL 33507

MANUFACTURER:

SILVA
Sweden AB
Kuskvagen 4, S-191-47
Sollentuna, Sweden

SEALED SOURCE MODEL DESIGNATION: MB-Microtec AG (MB-M), Bern Switzerland
Models T-4192-1, T-4149-1, and T-4188-1

ISOTOPE: Hydrogen-3
Hydrogen-3
Hydrogen-3

MAXIMUM ACTIVITY: 342 millicuries (Model 70/UNB)
55 millicuries (Model 60)
55 millicuries (Model 80B)

LEAK TEST FREQUENCY: Not Required

PRINCIPAL USE: (W) Luminous Products

CUSTOM DEVICE: ____ YES X NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: PAGE: 2 of 5

DEVICE TYPE: Marine Compasses

DESCRIPTION:

Type 60, 80B, and Type 70/UNB Compasses are safety devices intended for directional and navigational purposes. The incorporation of sealed, gaseous tritium light sources (GTLSs) in these devices makes information available to the user under conditions of darkness. The GTLSs are epoxy mounted within hermetically sealed "globes", thus, doubly encapsulated. The GTLSs are not readily accessible to the user during normal conditions of handling and use of the devices.

The Type 70/UNB compass contains four GTLSs which are supplied by SILVA by MB-Microtec AG (MB-M), Bern, Switzerland.

Part numbers and quantities are:

Quantity	SILVA P/N	MB-M P/N	Tritium Content (Nominal)
2	3060	T-4191-1	140 millicuries (mCi) each
2	2945	T-4149-1	31 mCi each

Total tritium content of type 70/UNB - 342 mCi maximum

The Type 60 and 80B compasses contain one GTLS described as follows:

Quantity	SILVA P/N	MB-M P/N	Tritium Content (Maximum)
1	3045	T-41881	55 mCi

Total tritium content of type 60 - 55 mCi maximum

Type 80B compasses are an improved version of the type 60. Type 80 is constructed with a stronger outer case and has additional rubber shock-resistance.

LABELING:

The compasses are imprinted with the words "Contains Tritium-3H" and instructions to return damaged or rejected compasses to the manufacturer.

DIAGRAM: See Attachments 1, 2, 3.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: PAGE: 3 of 5

DEVICE TYPE: Marine Compasses

CONDITIONS OF NORMAL USE:

The compasses will be used in outdoor environmental conditions by outdoor enthusiasts. The compasses are expected to remain usable up to 14 years. This is the point at which the light source will no longer perform its function.

PROTOTYPE TESTING:

Two compasses each of Type 60, 80B and Type 70/UNB were tested by Packforsk Service AB, Stockholm, Sweden, in order to establish a performance classification level per American National Standard N540. It was found that the following rating could be assigned: T2GC1222122. Additionally, the manufacturer drop tested Type 60 and type 80B compasses from a height of two meters. SILVA found that the plastic capsule cracked upon impact but the GTLSs remained intact. Furthermore, SILVA mounted compasses on the roof of their plant for extended periods to check breakdown of devices or components under the influence of ultra violet light, rain, snow, ice and air pollution.

EXTERNAL RADIATION LEVELS:

No detectable radiation from any accessible surface of the device.

QUALITY ASSURANCE AND CONTROL:

The manufacturer, SILVA, inspects 100% of the plastic parts and light sources for conformance to specifications and quality of fabrication. During the manufacturing of the compass, SILVA also performed spot inspection on each batch. This includes inspection of plastic "globe" weld, heat tested to 50°C, cold temperature tested to -40°C, check of final mounting and functional tested prior to distribution. A copy of the testing data on each batch is supplied to Jay Stuart Haft Company, Inc. for incorporation into their files.

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- The devices shall be distributed to persons exempt from the requirements for a license pursuant to Section 30.19, 10 CFR 30.
- This registration sheet and the information contained within the references shall not be changed or transferred without the written consent of the NRC.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: PAGE: 4 of 5

DEVICE TYPE: Marine Compasses

SAFETY ANALYSIS SUMMARY

Based on our review of the information and test data cited below, we conclude that the product is designed and manufactured such that:

- In normal use and disposal of a single exempt unit, it is unlikely that the external radiation dose in any one year, or the dose commitment resulting from the intake of radioactive material in any one year, to a suitable sample of the group of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the dose to the appropriate organ as specified in Column I of the following table.

- In normal handling and storage of the quantities of exempt units likely to accumulate in one location during marketing, distribution, installation, and servicing of the product, it is unlikely that the external radiation dose in any one year, or the dose commitment resulting from the intake of radioactive material in any one year, to a suitable sample of the group of of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the dose to the appropriate organ as specified in Column II of the following table.

- It is unlikely that there will be a significant reduction in the effectiveness of the containment, shielding, or other safety features of the product from wear and abuse likely to occur in normal handling and use of the product during its useful life.

- In use and disposal of a single exempt unit, or in handling and storage of the quantities of exempt units likely to accumulate in one location during marketing, distribution, installation, and servicing, the probability is low that the containment, shielding, or other safety features of the product would fail under such circumstances that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column III of the following table and the probability is negligible that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column IV of the following table.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: PAGE: 5 of 5

DEVICE TYPE: Marine Compasses

Table of Organ Doses
In Rems

Part of Body	Column I	Column I	Column II	Column IV
Whole body, head and trunk; active blood-forming organs; gonads; or lens of eye	0.001	0.01	0.5	15
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than 1 square centimeter	0.015	0.15	7.5	200
Other organs	0.003	0.03	1.5	50

Therefore, we deem that these compass designs are acceptable for licensing purposes. Furthermore, we conclude that these compasses would be expected to maintain their containment integrity for normal conditions of use and accidental conditions which might occur during uses specified in this certificate.

REFERENCES:

The following supporting documents for the compass designs are hereby incorporated by reference and are made a part of this registry document:

° Jay Stuart Haft Co., Inc. letters dated September 28, 1983 and March 19, 1984, June 14, 1984, June 29, 1989, August 7, 1989, September 21, 1989, and enclosures thereto.

ISSUING AGENCY:

U.S. NUCLEAR REGULATORY COMMISSION

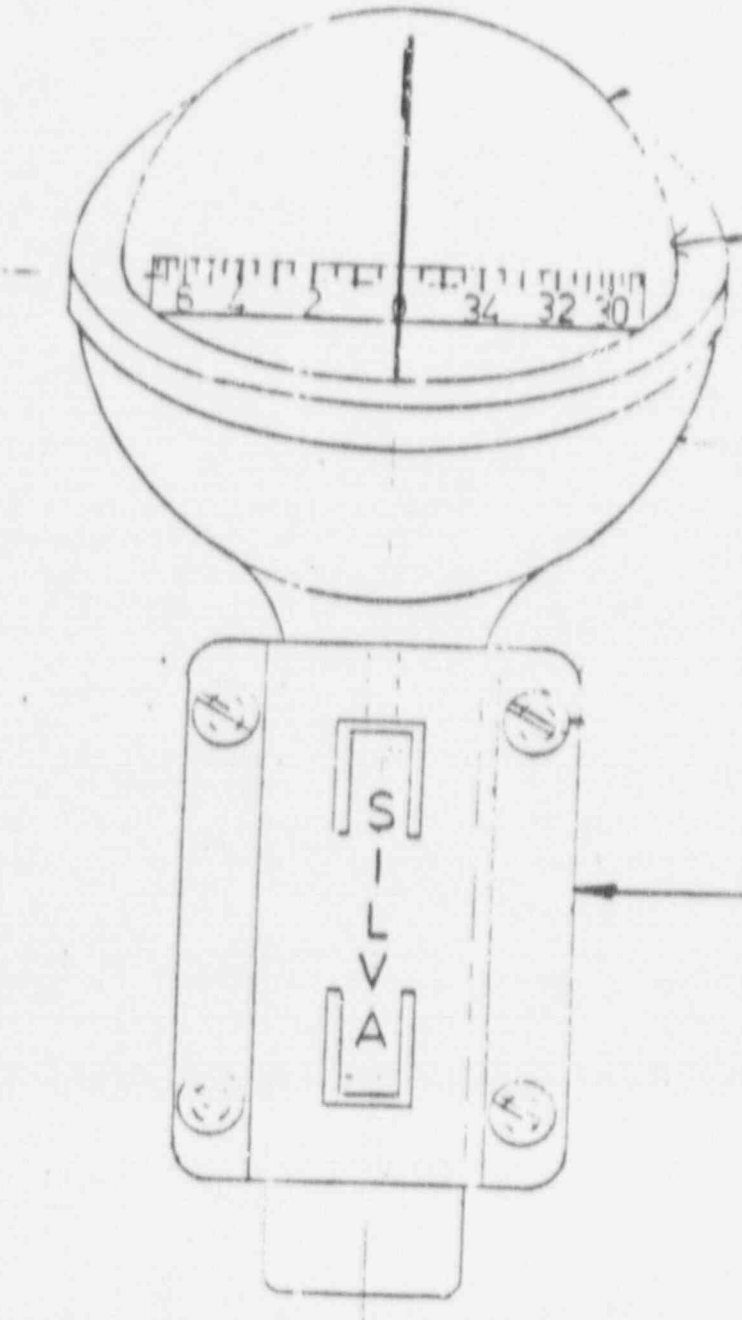
DATE: _____ REVIEWER: _____

DATE: _____ CONCURRENCE: _____

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: ATTACHEMNT 1

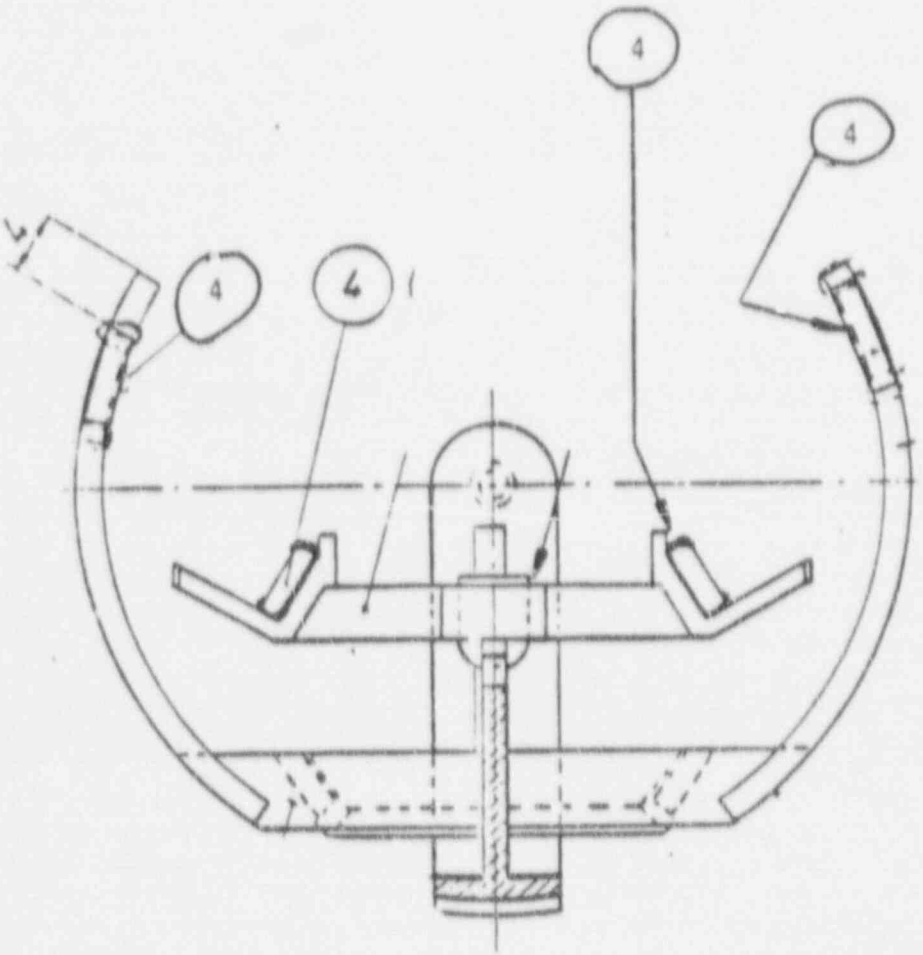
Model 70/UNB
Overall view
(used primary for Marine Compass Applications)



REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SOURCE

NO: NR-410-D-101-E DATE: ATTACHMENT 2

Model 70/UNB



Assembly Cross section View

4= Light Sources

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SOURCE

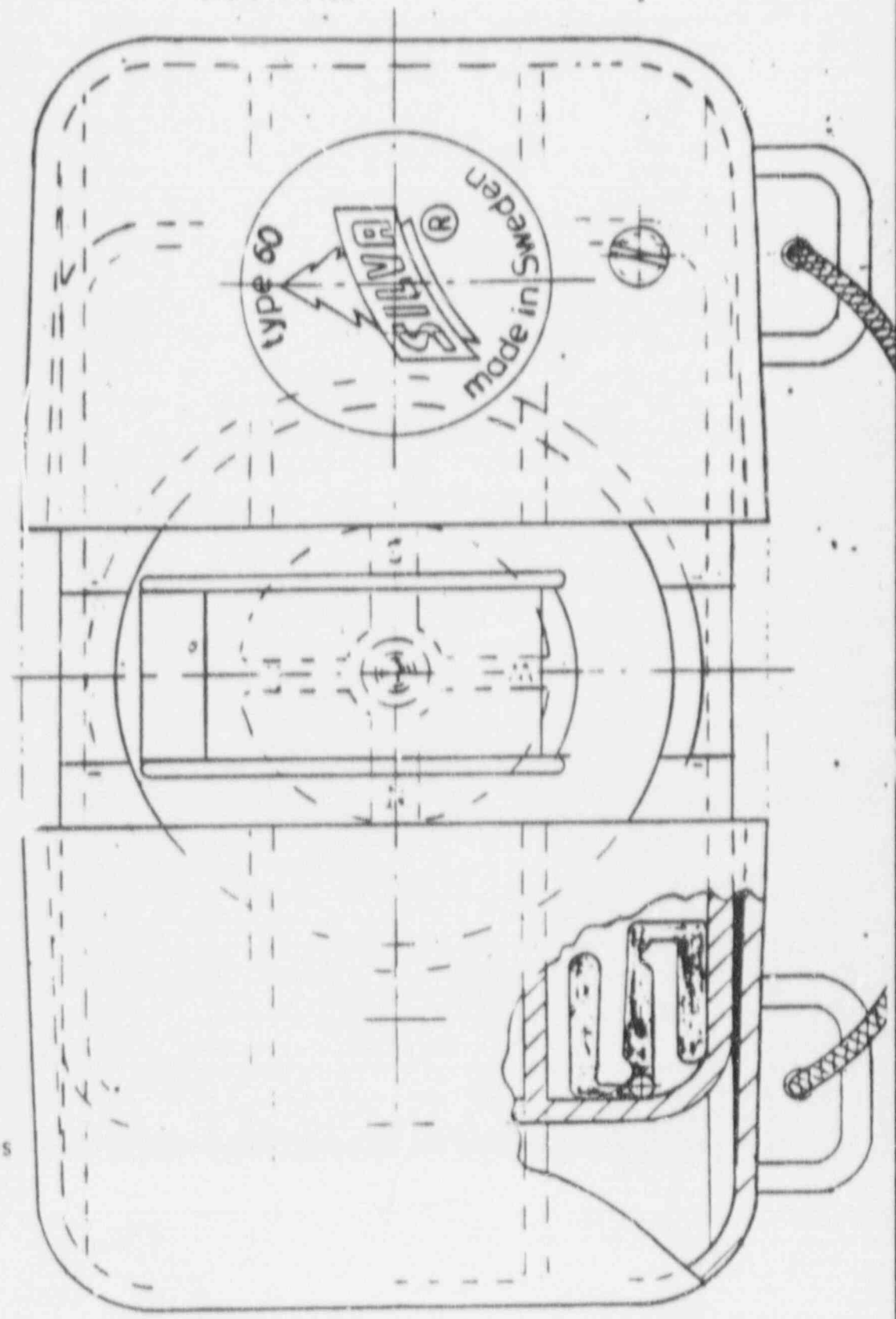
NO:

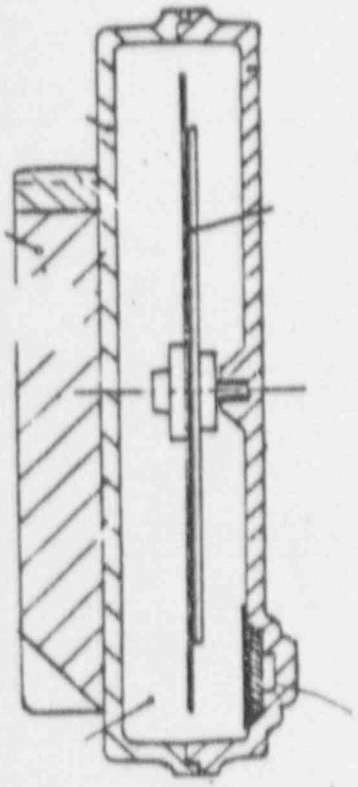
DATE:

ATTACHMENT 3

Model 60

Overall View



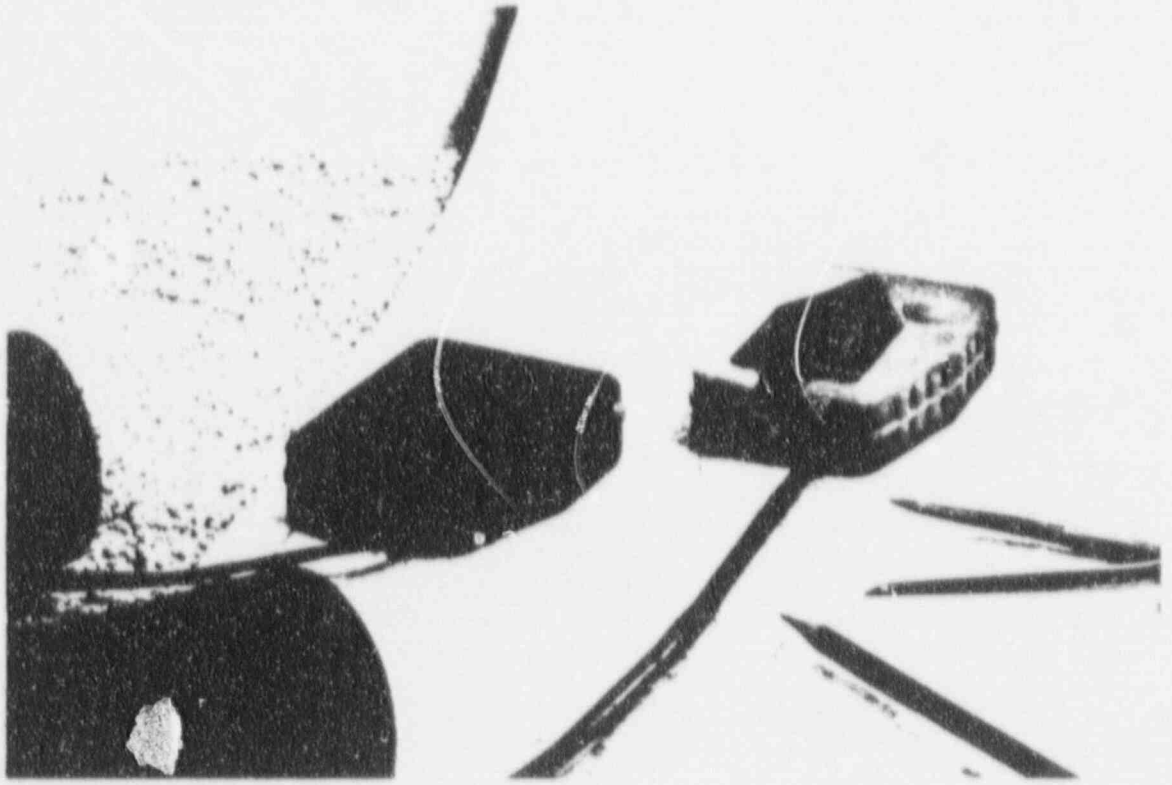


Cross Sectional View

Light Sources

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Amended in its entirety)

NO: NR-410-D-101-E DATE: ATTACHMENT 4



Type 80B

JAY STUART HAFT CO. INC.
GENERAL MARINE EQUIPMENT

P.O. BOX 11215
BRADENTON, FLORIDA 33507

June 29, 1989

U.S.N.R.C.
Medical Academic and Commercial
Use Safety Branch
Washington, D.C. 20555

RE: Control #020833

Gentlemen:

The enclosed material is additional information for expired license # 09-21481-01E.

If there is any additional information that must be supplied, please be in touch.

Sincerely,

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC.

ENCS.

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

Medical Academic and Commercial Use Safety Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Control #020833

Gentlemen:

This is to apply for a renewal license, per section 32.14, 10CFR 32, to distribute SILVA Marine Compasses, Type 70/UNB and Type 80, to persons exempt from the regulations.

These compasses are manufactured by SILVA Sweden AB, Kuskvagen 4, S-191 47, Sollentuna, Sweden. Other types of compasses manufactured by this company are distributed in the U.S.A. by Jay Stuart Haft Co., Inc.

The referenced units are described as follows:

Type 70/UNB

This compass contains four gaseous tritium light sources (GTLS) which are supplied to SILVA by MB-Microtec AG, Benn, Switzerland.

Total tritium content of type 70/UNB - 342 mCi Maximum

Type 80

This compass contains one GTLS.

Total tritium content of type 80 - 55 mCi Maximum

SILVA has received approval from the State Nuclear Institute (Svenska Straalskydsinstitutet) to manufacture and sell these products, after inspection and approval of the production methods. The SILVA staff has been educated and approved for the production and handling of these items. A medical check up of the labor force involved is made every month.

With each shipment of GTLS from MB-Microtec (MB-M) a certificate of conformance is supplied, and provides the technical data as shown on the attachments. Silva maintains inspection as random of production and handling operations.

TELEPHONE 813/745-7161 TELEX 808778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

A---Element and Mass Number

Hydrogen 3 (Tritium)

B---Chemical and/or Physical Form

Sealed gaseous tritium light sources (GTLS) in SILVA Compasses Type 70UNB and Type 80

C---Maximum Amount to be Possessed at any one time

Type 70UNB--342 mCi Each

Type 80--55 mCi Each

Total=.397 Curies

NRC FORM 313
(10-87)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3 150-0120
Expires 6-30-90

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.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

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.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 09-21481-01E

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Jay Stuart Haft Co., Inc.
P.O. Box 11210
Bradenton, FL 34282-1210

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED:

3004 29th. Ave. E.
Bradenton, FL 34208

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Renee Dunn

TELEPHONE NUMBER: 813-746-7161

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 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 possessed 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. N/A

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3, I CFR part 170 AMOUNT ENCLOSED $ PD-$290.00

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, 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.

SIGNATURE: CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
[signature]	Jay Stuart Haft	General Manager	6/14/89

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
AMOUNT RECEIVED	CHECK NUMBER			DATE

Purpose For Which Licensed Material will be used.

Compasses will be imported and distributed by the Jay Stuart Haft Co., Inc. to persons exempt from license requirements.

These compasses are imported directly from a manufacturer:

SILVA Sweden AB
Kuskvagen 4, S-191 47
Sollentuna, Sweden

RESUMES

Jay Stuart Haft, PhD
761 Lands' End Drive
Longboat Key, FL 34228

Trained at the New Jersey College of Medicine for 1 year-(on the job).

Trained at the Medical College of Wisconsin for 1 year-one the job and formal course.

Usage consisted of Isotopic tracers of Microcurie quantities at the Medical College of Wisconsin for 1 year.

Jeffrey I. Scott
2101 19th. Ave. W.
Bradenton, FL 34205

Graduate--University of South Florida, Tampa, FL -- June 1979

Biology I and II

One week of saturated training at the SILVA Factory in Stockholm, Sweden -- 1987.

ITEM 8

See Item 7

All our Tritium type compasses will be stored in a ventilated, restricted area, in a locked metal cabinet within a one story metal building at the above location.

The building has a burglar alarm system and is within police and fire protection service areas.

Radiation Safety Program

All shipments of the referenced compasses will be opened and units inspected in the limited access area under the supervision of the Radiation Safety Officer. The plant air flow is into the restricted area with an exhaust to the outside through a stack at this location.

In the unlikely event of damage to one or more of the compasses resulting in release of tritium, the DHRS will be notified immediately, the building secured with any damaged item placed in the limited-access area and appropriate health physics service organizations contacted if necessary by the Radiation Safety Officer or his designate.

NRC FORM 313
(10 87)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires 9-30-90

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.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

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.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 09-21481-01E

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Jay Stuart Haft Co., Inc.
P.O. Box 11210
Bradenton, FL 34282-1210

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED:

3004 29th. Ave. E.
Bradenton, FL 34208

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Renee Dunn

TELEPHONE NUMBER: 813-746-7161

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 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 possessed 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. N/A	12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)* FEE CATEGORY 3.I CFR part 170 AMOUNT ENCLOSED $ PD-$290.00

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, 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.

SIGNATURE—CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
Jay Stuart Haft	Jay Stuart Haft	General Manager	6/14/89

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
AMOUNT RECEIVED	CHECK NUMBER			DATE

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

Medical Academic and Commercial Use Safety Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Control #020833

Gentlemen:

This is to apply for a renewal license, per section 32.14, 10CFR 32, to distribute SILVA Marine Compasses, Type 70/UNB and Type 80, to persons exempt from the regulations.

These compasses are manufactured by SILVA Sweden AB, Kuskvagen 4, S-191 47, Sollentuna, Sweden. Other types of compasses manufactured by this company are distributed in the U.S.A. by Jay Stuart Haft Co., Inc.

The referenced units are described as follows:

Type 70/UNB

This compass contains four gaseous tritium light sources (GTLS) which are supplied to SILVA by MB-Microtec AG, Benn, Switzerland.

Total tritium content of type 70/UNB - 342 mCi Maximum

Type 80

This compass contains one GTLS.

Total tritium content of type 80 - 55 mCi Maximum

SILVA has received approval from the State Nuclear Institute (Svenska Straalskydsinstitutet) to manufacture and sell these products, after inspection and approval of the production methods. The SILVA staff has been educated and approved for the production and handling of these items. A medical check up of the labor force involved is made every month.

With each shipment of GTLS from MB-Microtec (MB-M) a certificate of conformance is supplied, and provides the technical data as shown on the attachments. Silva maintains inspection as random of production and handling operations.

TELEPHONE 813/746-7161 TELEX 809778 JAY HAFT BNTN
WAREHOUSING IN FLORIDA, MARYLAND, MASSACHUSETTS & WASHINGTON

A---Element and Mass Number

Hydrogen 3 (Tritium)

B---Chemical and/or Physical Form

Sealed gaseous tritium light sources (GTLS) in SILVA Compasses Type 70UNB and Type 80

C---Maximum Amount to be Possessed at any one time

Type 70UNB--342 mCi Each

Type 80--55 mCi Each

Total=.397 Curies

Purpose For Which Licensed Material will be used.

Compasses will be imported and distributed by the Jay Stuart Haft Co., Inc. to persons exempt from license requirements.

These compasses are imported directly from the manufacturer:

SILVA Sweden AB
Kuskvagen 4, S-191 47
Sollentuna, Sweden

RESUMES

Jay Stuart Haft, PhD
761 Lands' End Drive
Longboat Key, FL 34228

Trained at the New Jersey College of Medicine for 1 year-(on the job).

Trained at the Medical College of Wisconsin for 1 year-one the job and formal course.

Usage consisted of Isotopic tracers of Microcurie quantities at the Medical College of Wisconsin for 1 year.

Jeffrey I. Scott
2101 19th. Ave. W.
Bradenton, FL 34205

Graduate--University of South Florida, Tampa, FL -- June 1979

Biology I and II

One week of saturated training at the SILVA Factory in Stockholm, Sweden -- 1987.

ITEM 8

See Item 7

Radiation Safety Program

All shipments of the referenced compasses will be opened and units inspected in the limited access area under the supervision of the Radiation Safety Officer. The plant air flow is into the restricted area with an exhaust to the outside through a stack at this location.

In the unlikely event of damage to one or more of the compasses resulting in release of tritium, the DHRS will be notified immediately, the building secured with any damaged item placed in the limited-access area and appropriate health physics service organizations contacted if necessary by the Radiation Safety Officer or his designate.

All our Tritium type compasses will be stored in a ventilated, restricted area, in a locked metal cabinet within a one story metal building at the above location.

The building has a burglar alarm system and is within police and fire protection service areas.

AUG 2 1 1989

Jay Stuart Haft Co., Inc.
ATTN: Renee Dunn
Office Manager
P.O. Box 11210
Brandenton, FL 34282-1210

Dear Ms. Dunn:

This is to acknowledge receipt of Check No. 10758 ($290) and Check No. 11008 ($870) in payment of the fee required for your June 14, 1989 application for a materials license as specified in fee Categories 3H ($580 application fee) and 9A ($580 amendment fee) of §170.31, 10 CFR 170, copy enclosed.

Sincerely,

Signed by:
Glenda Jackson

Glenda Jackson
Licensing Fee Management Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:
10 CFR 170

DISTRIBUTION:
Pending Fee File
OC DAF R/F
LFMB R/F (2)
DW/ABC/Haft

OFFICE:	OC/LFMB	OC/LFMB
SURNAME:	SKimberley:bg	GJackson
DATE:	8/18/89	8/18/89

030-31208

JAY STUART HAFT CO. INC MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

June 14, 1989

U.S. Nuclear Regulatory Commission
Medical Academic and Commercial Use Safety Branch
Washington, D.C. 20555

Attn: Bruce Carrico

Dear Bruce,

As per our telephone conversation this morning, I wish to advise you that the Jay Stuart Haft Co., Inc. would like to apply for a new license for authorized distribution of SILVA AB Marine Compasses--Type 70/UNB and Type 80. 342 Millicuries and 55 Millicuries respectfully.

I have enclosed Check #10758 in the amount of $290.00 to cover Category 3.I CFR part 170.

I have also enclosed an old copy of our former license on which I have made current notes.

Thank you for your attention to this matter.

Sincerely,

Renee Dunn

Renee Dunn
Office Manager

JAY STUART HAFT CO., INC

ENC: 2

Log: [illegible] \ [illegible] 89
Remitter
Check No. 10758 \ 11008
Amount $290 \ $870
Fee Category 3H + 9A
Type of Fee APP
Date Check Rec'd. 7/6/89
Date Completed 8/18/89
By: S. [illegible]

(Expired 09-21481-01E)
020833

JUN 20 1989

NRC Form 374
(8-82)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93 - 438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s); and to import such byproduct and source material. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Jay Stuart Haft Co., Inc. 3004 29th. Ave. E. ~~3526 14th Street West~~ 2. Bradenton, Florida ~~33507~~ 34208	3. License number 09-21481-01E 4. Expiration date May 31, 1989 5. Docket or Reference No. 030-20841

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Hydrogen 3	A. Sealed source (MB-Microtec AG Models T-4192-1, T-4149-1 and T-4188-1)	A. Not applicable (Refer to Condition 10.)

9. Authorized use

A. Distribution of Marine Compasses specified in Condition 10., to persons exempt from the requirements for a license pursuant to Section 30.19, 10 CFR Part 30, when such devices have been manufactured pursuant to Section 32.22, 10 CFR Part 32.

CONDITIONS

10. Each device distributed pursuant to this license shall contain not more than the Hydrogen 3 listed in the following table:

Product Model	Maximum Quantity per Unit
SILVA AE Marine Compass Type 70/UNB Type ~~60~~ 80*	342 millicuries 55 millicuries

11. Devices containing licensed material shall be labeled in accordance with 10 CFR Part 32.22.

12. This license does not authorize possession or use of licensed material.

13. The license shall file periodic reports as sepcified in Section 32.25(c) 10 CFR 32.

*TYPE 80 -- This is an improved version of the type 60. It uses the identical Tritium source, but has a stronger outer case with additional rubber shock-resistant covering.

JUN 20 1989

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
09-21481-01E

Docket or Reference number

CONDITIONS

14. Each device distributed under this license shall be manufactured, tested, and labeled in accordance with statements, representations, and procedures contained in application dated September 28, 1983; and letter dated March 19, 1984. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAY 23 1984

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

09-21481-02E

JAY STUART HAFT CO. INC. MARINE EQUIPMENT DISTRIBUTORS

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

January 3, 1990

USNRC
ATTN: J. Bruce Carrico
Washington, D.C. 20555

Dear Bruce,

Enclosed is a copy of the State of Florida Dept. of Health and Rehabilitative services Radiation Control License we received from Tallahhassee recently.

Thank you for all your help and patience over the past several months and may I wish you and yours a very Happy New Year.

Sincerely,

Renee

Renee Dunn
OFFICE MANAGER

JAY STUART HAFT CO., INC.

ENC.

90417-284

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
OFFICE OF RADIATION CONTROL

RADIOACTIVE MATERIALS LICENSE

AMENDMENT NO. 4

Pursuant to Chapter 404, Florida Statutes, and Chapter 10D-91, Florida Administrative Code, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to receive, acquire, possess and transfer the radioactive material(s) designated below and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the State of Florida, Department of Health and Rehabilitative Services now or hereafter in effect and to any conditions specified below.

Licensee

1. Name: JAY STUART HAFT CO., INC.

2. Address: P.O. Box 11210
Bradenton, FL 34282-1210

With reference to renewal application dated 4/14/89, State of Florida Radioactive Materials

3. License Number: 1638-1 is hereby renewed in its entirety to read as follows:

4. Expiration date: May 31, 1994

5. Category: 3L(5)

6. Radioactive material (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. Hydrogen 3	A. Sealed gaseous tritium light sources (MB-Microtec AG(MB-M) Models T-4149-1 and T-4188-1)	A. 100 sources; not to exceed 55 millicuries each.
B. Hydrogen 3	B. Sealed gaseous tritium light sources (MB-Microtec AG(MB-M) Model T-4191-1)	B. 100 sources; not to exceed 150 millicuries each.

9. Authorized Use.

A. and B. Possession of tritium contained in SILVA Marine Compass Model Numbers, Type 80B, Type 701UNB and Type 60, provided that Types 80B and 60 contain no more than 55 millicuries, and Type 701UNB contains no more than 342 millicuries. Regulatory Commission Exempt Distribution License.

CONDITIONS

10. The authorized place of storage is the licensee's facility located at 3004 29th Avenue East, Bradenton, Florida 34208.

(See Page 2)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
OFFICE OF RADIATION CONTROL

RADIOACTIVE MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 1638-1
AMENDMENT NO. 4
(3L(5)) (E94)

11. Failure to comply with the provisions of this license is a felony of the third degree pursuant to Section 404.161, Florida Statutes. Also, violations may warrant an administrative fine of up to $1,000.00 per violation per day, pursuant to Section 404.162, Florida Statutes.

12. Licensed material shall be controlled by Jay Stuart Haft, Ph.D., Jeffrey I. Scott or Stephen R. Scott.

13. The licensee shall comply with the provisions of Chapter 10D-91, Florida Administrative Code, Part X, "Notices, Instructions and Reports to Workers; Inspections" and Part IV, "Standards for Protection Against Radiation".

14. Sealed sources containing licensed material shall not be opened nor removed from their respective source holders by the licensee.

15. Licensed material described in Items 6, 7, 8 and 9, Subitems A and B, shall be distributed to persons exempt from licensing pursuant to an exempt distribution license issued by the U.S. Nuclear Regulatory Commission.

16. This license authorizes storage of the radioactive materials listed in Items 6, 7, 8 and 9, Subitems A and B for distribution to persons exempt from licensing pursuant to an exempt distribution license issued by the U.S. Nuclear Regulatory Commission.

17. The licensee shall not transfer possession and/or control of radioactive material, or products containing radioactive material as a contaminant except:

    A. By transfer to a specifically licensed recipient; or

    B. As provided otherwise by specific provision of this license pursuant to the requirements of the "Florida Control of Radiation Hazard Regulations", Chapter 10D-91, Florida Administrative Code.

18. A. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, 8 and 9 of this license in accordance with statements, representations and procedures contained in the licensee's application dated April 14, 1989, signed by Jeffrey I. Scott, Operations Manager, and correspondence dated July 12, 1989, signed by Renee Dunn, Office Manager.

(See Page 3)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
OFFICE OF RADIATION CONTROL

RADIOACTIVE MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 1638-1
AMENDMENT NO. 4
(3L(5)) (E94)

18. B. The licensee shall comply with all applicable requirements of the "Florida Control of Radiation Hazard Regulations", Chapter 10D-91, Florida Administrative Code, and these Regulations shall supersede the licensee's statements in applications or correspondence, unless the statements are more restrictive than the Regulations.

For the Office of Radiation Control

Paul E. Vause, Jr.
Public Health Physicist

Date December 15, 1989

Licensee - White
Central Files - Canary
U.S.N.R.C. - Pink
Office - Canary
Field Files - Pink

JAY STUART HAFT CO. INC. MARINE EQUIPMENT

P.O. BOX 11210
BRADENTON, FLORIDA 34282-1210 U.S.A.

December 27, 1990

J. Bruce Carrico
Division of Industrial and Medical Nuclear Safety
Commercial Section
U.S. Neclear Regulatory commission
Washington, D.C. 20555

RE: 09-21481-02E

Dear Bruce,

Please find enclosed the Florida State License which I understand you will need to complete your file.

Thank you for all your help. May I wish you belated happy holidaysand a very happy new year.

Best wishes,

Renee' Dunn

Renee Dunn
Bookkeeper

JAY STUART HAFT CO., INC.

ENC

TELEPHONE: 813/746-7161 TELEX: 808778 JAY HAFT BNTN
TELEFAX: 813/746-7166

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
OFFICE OF RADIATION CONTROL

900727-617

RADIOACTIVE MATERIALS LICENSE

Pursuant to Chapter 404, Florida Statutes, and Chapter 10D-91, Florida Administrative Code, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to receive, acquire, possess and transfer the radioactive material(s) designated below and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the State of Florida, Department of Health and Rehabilitative Services now or hereafter in effect and to any conditions specified below.

Licensee

1. Name: JAY STUART HAFT COMPANY, INC.

2. Address: P. O. Box 11210
Bradenton, FL 34282-1210

3. License Number: 2111-1

4. Expiration date: November 30, 1995

5. Category: 3L(5)

6. Radioactive material (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. Hydrogen 3	A. Sealed gaseous tritium light sources (MB-Microtec AG(MB-M) Models T-4149-1 and T-4188-1)	A. 200 sources; not to exceed 55 millicuries each.
B. Hydrogen 3	B. Sealed gaseous tritium light sources (MB-Microtec AG(MB-M) Model T-4191-1)	B. 200 sources; not to exceed 150 millicuries each.

9. Authorized Use.

A. and B. Possession of tritium contained in SILVA Marine Compass Model Numbers, Type 80B, and Type 70 UNB provided that Type 80B contains no more than 55 millicuries, and Type 70 UNB contains no more than 342 millicuries. Distribution authorized by a U.S. Nuclear Regulatory Commission Exempt Distribution License Number 09-21481-02E.

CONDITIONS

10. The authorized place of storage is the licensee's facility located at 3004 29th Avenue East, Bradenton, Florida 34208.

(See Page 2)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
OFFICE OF RADIATION CONTROL

RADIOACTIVE MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 2111-1
(3L(5) (K95)

11. Failure to comply with the provisions of this license is a felony of the third degree pursuant to Section 404.161, Florida Statutes. Also, violations may warrant an administrative fine of up to $1,000.00 per violation per day, pursuant to Section 404.162, Florida Statutes.

12. Licensed material shall be controlled by Jeffrey I. Scott or Stephen R. Scott.

13. The licensee shall comply with the provisions of Chapter 10D-91, Florida Administrative Code, Part X, "Notices, Instructions and Reports to Workers; Inspections" and Part IV, "Standards for Protection Against Radiation".

14. Sealed sources containing licensed material shall not be opened nor removed from their respective source holders by the licensee.

15. This license authorizes storage of the radioactive materials listed in Items 6, 7, 8 and 9, Subitems A and B for distribution to persons exempt from licensing pursuant to an exempt distribution license Number 09-21481-02E issued by the U.S. Nuclear Regulatory Commission.

16. The licensee shall conduct a physical inventory and inspection at intervals not to exceed six months to account for all sealed sources received and possessed under this license. The records of the inven tories shall be maintained for three years from the date of the inven tory for inspection by the Department of Health and Rehabilitative Services, and shall include the quantities and kinds of radioactive material, location of sealed sources and the date of the inventory.

17. The licensee shall not transfer possession and/or control of radioac- tive material, or products containing radioactive material as a con- taminant except:

    A. By transfer to a specifically licensed recipient; or

    B. As provided otherwise by specific provision of this license pur- suant to the requirements of the "Florida Control of Radiation Hazard Regulations", Chapter 10D-91, Florida Administrative Code.

(See Page 3)

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18. A. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, 8 and 9 of this license in accordance with statements, representations and procedures contained in the licensee's application dated July 25, 1990, signed by Jeffrey I. Scott, Operations Manager, and correspondence dated September 28, 1990, signed by Renee Dunn, Office Manager.

B. The licensee shall comply with all applicable requirements of the "Florida Control of Radiation Hazard Regulations", Chapter 10D-91, Florida Administrative Code, and these Regulations shall supersede the licensee's statements in applications or correspondence, unless the statements are more restrictive than the Regulations.

For the Office of Radiation Control

Claudia Fernandez for

Paul E. Vause, Jr.
Public Health Physicist

Date November 28, 1990

Licensee - White
Central Files - Canary
U.S.N.R.C. - Pink
Office - Canary
Field Files - Pink

R1201020 LICENSING TRACKING SYSTEM DATE: 06/20/89
PAGE: 1

LTS WORKSHEET

DOCKET NO : 03031208 LICENSE NO : 09-21481-02E STATUS: 3
MAIL CONTROL: 020833 RECEIPT DATE : 890620 ACTION TYPE: 1
FED. GOVT : N INST. CODE : 21481 LICENSE REGION: 0
ISSUE DATE: _____ ORIGINAL DATE: _____ EXPIRATION DATE: 199412
NAME : JAY STUART HAFT CO., INC.
DEPT/BUREAU: _____
BUILDING : _____
STREET : 3004 29TH AVENUE E.
CITY : BRADENTON STATE: FL ZIP: 34208
CONTACT PERSON: JEFFREY Scott PHONE: 813-746-7161 entered
PRIMARY PGM CODE : 03254 SECONDARY PGM CODES: _____
INSPECTION REGION: 2 PRIORITY CODE: _ INSPECTION CATEGORY: ___
RADIATION SAFETY OFFICER: _____
STATES WHERE USE IS AUTHORIZED: 1
0 - ALL LISTED STATES
1 - SAME AS STATE IM ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES
AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)
REPORTING IDENTIFICATION SYMBOL: _____
APPROVAL FOR: REDISTRIBUTION: STORAGE ONLY:
TEMPORARY JOB SITES: INCINERATION:
BURIAL:
EXEMPTIONS: (1)_____ (2)_____

entered

DECOM FIN ASSUR REQD: N
SUBM: _
CONT PLAN REQD: N APPRV: _

POSSESSION LIMIT INFORMATION PAGE: 2

MATERIAL TYPE : NPA FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

MATERIAL TYPE : ___ FORM CODE: ___ AGGREGATE CODE: ___
MODEL NUMBER :
DESCRIPTION :
TOTAL QUANTITY : UNIT: ___
OTHER : _ # SOURCES: ___

INDIVIDUAL USERS

NAME	AUTHORIZATION

ADDRESS WHERE MATERIAL IS USED OR POSSESSED

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
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BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: _____
Status Code: 3
Fee Category: _____
Exp. Date: 0
Fee Comments: _____

LICENSE FEE TRANSMITTAL

A. REGION HQ

1. APPLICATION ATTACHED
   Applicant/Licensee: JAY STUART HAFT CO., INC.
   Received Date: 890620
   Docket No: 3031208
   Control No.: 020833
   License No.:
   Action Type: New License

2. FEE ATTACHED $290.00
   Amount:
   Check No.: 10758

3. COMMENTS

Signed M. Moriarty
Date 06-20-87

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / 4)

1. Fee Category and Amount: 3I $290

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal _____
   License ✓

3. OTHER _____

Signed S. Kimberly
Date 7/6/87