

CONVERSATION RECORD

TYPE:

Outgoing Telephone x
Incoming Telephone
Meeting

NAME OF PERSON CONTACTED:
Gary Robertson

ORGANIZATION:
Berthold Systems,
Inc.

TIME:
2:45 pm

DATE:
5/8/01

SUBJECT:

Request for transfer of device registrations in Berthold's letter dated April 30, 2001, is withdrawn.

SUMMARY:

William Ward and I called Mr. Robertson regarding his letter dated April 30, 2001. He requested the transfer of registration certificate Nos. NR-504-D-109-B and NR-504-D-111-B from Aptec-NRC, Inc. to Berthold Systems, Inc. We explained that the application is unacceptable because he did not provide any information on the devices other than copies of the registration certificates.

Mr. Robertson also bought up during the telephone conversation two new issues which had not been included in the letter: (1) Berthold Systems, Inc., has not decided yet if they will indeed take over Aptec-NRC, Inc.; and (2) Berthold would not want to market all the models which are currently listed in the two certificates. We indicated to him that the models need to be specified in the application.

Based on our explanation of the lack of information, Mr. Robertson decided to withdraw the April 30, 2001 letter, and submit a complete application later.

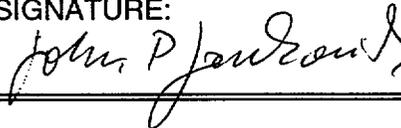
ACTION REQUIRED:
Close SSD action.

PLACE THIS RECORD IN:

Registration File
QA File
Incident File
General File

PERSON DOCUMENTING THE CONVERSATION:
John Jankovich

SIGNATURE:



DATE:
5/8/01



berthold systems, inc.™
An Employee Owned Company

Hopewell Business Park
101 Corporation Drive
Aliquippa, PA 15001
Phone: 724-378-1900
Fax: 724-378-1926
<http://www.bsi-1.com>

April 30, 2001

John J. Jankovich
Office of Nuclear Materials, Safety & Systems
Mail Stop T-8 F5
US Nuclear Regulatory Commission
Washington DC 20555

Subject: Change in Registration of Gammatrol Sources & Shields

Reference: Registry Numbers NR-504-D-111-B and NR-504-D-109-B

Dear Sir:

Several months ago, Aptec-NRC agreed to transfer their Gammatrol line of gauges and weigh scales to Berthold Systems. Berthold Systems has begun selling Gammatrol equipment to our customers. We are now assembling some of the electronic components at our facility. The sources and shields for Gammatrol equipment have been and still are manufactured by and distributed from Aptec-NRC, 125 Titus Avenue, Warrington, PA in accordance with their licenses 37-02401-01 and 37-02401-06G.

As part of the ongoing process of moving the Gammatrol line, Berthold Systems wrote to NRC's Region 1 office on March 6 (copy attached) to ask that the Gammatrol sources and shields be added to our licenses. John McGrath responded that we would need to have the registry certificates amended first (copy attached).

Copies of the current source registrations for these devices are also attached. Berthold Systems intends to abide by all of the requirements for manufacture of these devices as specified in the registrations. Berthold Systems plans to manufacture, service, and repair the shields and to load the approved sealed sources into them. Please amend the registrations to list Berthold Systems Inc. as the manufacturer and distributor for the LS-101 and SH-300 series devices.

Please contact me if you have questions or need any additional information. Thank your for your assistance.

Sincerely,

A handwritten signature in cursive script that reads 'Gary W. Robertson'.

Gary Robertson
President, Berthold Systems, Inc.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B DATE: January 6, 2000 PAGE 1 OF 5

DEVICE TYPE: Level or Density Gauge

MODEL: SH-300 Series (SH-301, SH-302, SH-352)

MANUFACTURER/DISTRIBUTOR: Aptec-NRC, Inc.
125 Titus Avenue
Warrington, PA 18976
(formerly Nuclear Research Corp.)

SEALED SOURCE MODEL DESIGNATION: Nuclear Research Corporation
Model S-6
Amersham Models CDC.800 and
CDC.93
Bebig Model Cs7.P04
Ohmart Model A2102
Texas Nuclear Model 57157C

ISOTOPE: MAXIMUM ACTIVITY:
Cesium-137 SH-301: 50 mCi (1.85 GBq)
SH-302 and SH-352: 4000 mCi (148 GBq)

LEAK TEST FREQUENCY: Nuclear Research Corporation
Model S-6: 3 years
Amersham Models CDC.800 and CDC.93:
6 months
Bebig Model Cs7.P04: 6 months
Ohmart Model A2102: 6 months
Ohmart Model A2106: 6 months
Texas Nuclear Model 57157C: 6 months

PRINCIPAL USE: (D) Gamma Gauge

CUSTOM DEVICE: _____ YES X _____ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

PAGE 2 OF 5

DEVICE TYPE: Level or Density Gauge

DESCRIPTION:

The source housing for the Model SH-300 Series is constructed of corrosion-resistant cast Meehanite. A manually operated shutter is used to move the doubly encapsulated source into a radiation beam that extends straight out and down at an angle of 45° from the face of the mounting plate. The shutter is provided with a lock to prevent unauthorized source shutter opening. For dimensions and mounting location of the source housing see Attachment 1.

The Model S-6 source holder is designed to hold doubly encapsulated stainless steel or monel capsules. The source holder dimensions are 4.25" (108.0 mm) in length and 1.00" (25.4 mm) in diameter.

The Models S-7 and S-8 source holders are designed to hold doubly encapsulated stainless steel or monel source capsules. The Model S-7 source holder is used in the Model SH-302 and Model SH-352 gauges, the Model S-8 source holder is used in the Model SH-301 gauge. The S-7 and S-8 source holders contain one of the following sources:

<u>Source Model</u>	<u>Source Dimensions</u>	
	diameter x length (inch)	(mm)
Amersham Model CDC.800	0.236 x 0.315	6.0 x 8.0
Amersham Model CDC.93	0.315 x 0.472	8.0 x 12.0
Bebig Model Cs.7.P04	0.317 x 0.472	8.0 x 12.0
Ohmart Models A2106 and A2102	0.5 x 0.75	12.7 x 19.05
Texas Nuclear Model 57157C	0.5 x 0.75	12.7 x 19.05

DIAGRAM:

See Attachments 1-7.

LABELING:

The Model SH-300 Series devices distributed to specific licensees are labeled in accordance with the provisions of 20.1901 of 10 CFR Part 20.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

PAGE 3 OF 5

DEVICE TYPE: Level or Density Gauge

LABELING (cont'd):

When distributed to general licensees, the devices are additionally labeled in accordance with the provisions of Paragraph 32.51(a)(3) of 10 CFR Part 32.

The label tags are made of aluminum, rectangular in shape, 3" x 2.44" (7.62 x 6.2 cm), and permanently attached by four carbon steel drive screws to the source housings. No corrosion problems due to the different materials with the castings of the source housings, the aluminum tags, or the carbon steel drive screws under normal industrial conditions has been reported.

CONDITIONS OF NORMAL USE:

The Model SH-300 Series devices are used for continuous level or density measurements in an industrial environment. Applications include monitoring and controlling density, percent solids, specific gravity, volumes and levels in tanks silos and bins.

PROTOTYPE TESTING:

The devices were previously deemed acceptable for licensing purposes by the U.S. Nuclear Regulatory Commission, no testing data was submitted by the manufacturer.

EXTERNAL RADIATION LEVELS:

The manufacturer reported the following 5 mrem/hr (50 μ Sv/hr) isodose curve for external radiation levels from the device:

<u>Model</u>	<u>Activity</u>		<u>Distance</u>	
	<u>mCi</u>	<u>GBq</u>	<u>Shutter open</u> <u>feet</u>	<u>m</u>
SH-301	20	0.74	2.5	0.76
SH-301	50	1.85	7.0	2.13
SH-302	100	3.70	7.0	2.13
SH-302	1500	55.50	31.0	9.45
SH-352	100	3.70	7.0	2.13
SH-352	1500	55.50	31.0	9.45

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

PAGE 4 OF 5

DEVICE TYPE: Level or Density Gauge

EXTERNAL RADIATION LEVELS (cont'd):

If the shutter is closed, all Models have less than 5 mrem/hr (50 μ Sv/hr) at 8 inches from the surface of the housing.

QUALITY ASSURANCE AND CONTROL:

The manufacturer has demonstrated an acceptable quality assurance and control program which has been previously approved by the U.S. Nuclear Regulatory Commission.

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- Installation, maintenance, repair, modification, etc., of the source holder to be done by manufacturer or other persons specifically licensed to perform this service.
- The device shall be distributed to either specific or general licensees of the U.S. Nuclear Regulatory Commission or Agreement States.
- Devices shall be labeled in accordance with Section 20.1901 of 10 CFR Part 20. When distributed to persons generally licensed, the devices are additionally labeled in accordance with 32.51(a)(3) of 10 CFR Part 32.
- Handling, storage, use, transfer, and disposal: To be determined by the licensing authority.
- The device shall be leak tested at intervals not to exceed 36 months with the Model S-6 source holder, or 6 months with all other source holders, using techniques capable of detecting 0.005 μ Ci (185 Bq) of removable contamination.
- This registration sheet and the information contained within the references shall not be changed without the written consent of the NRC.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE:

PAGE 5 OF 5

DEVICE TYPE: Level or Density Gauge

SAFETY ANALYSIS SUMMARY:

Based on review of the Model SH-300 Series devices, and the information and test data cited below, and that the device has been previously deemed acceptable for licensing purposes by the U.S. Nuclear regulatory Commission, we continue to conclude that these devices are acceptable for licensing purposes.

REFERENCES:

The following supporting documents for the Model SH-300 Series (SH-301, SH-302, SH-352) are hereby incorporated by reference and are made a part of this registry document.

- Nuclear Research Corporation's U.S. Nuclear Regulatory Commission License No. 37-02401-04G and enclosures thereto.
- Nuclear Research Corporation's letters dated February 23, 1983, December 5, 1983, and August 24, 1984, with enclosures thereto.
- Nuclear Research Corporation's letters dated February 21, 1997, December 19, 1997, February 12, 1998, March 17, 1998, April 9, 1998, May 4, 1998, June 17, 1998, June 26, 1998, and November 11, 1998.
- **Aptec-NRC's letters dated August 13, 1999, September 10, 1999, and November 5, 1999, with enclosures thereto.**

ISSUING AGENCY:

U.S. Nuclear Regulatory Commission

Date: January 6, 2000

Reviewer: Michele L. Burgess
Michele L. Burgess

Date: January 6, 2000

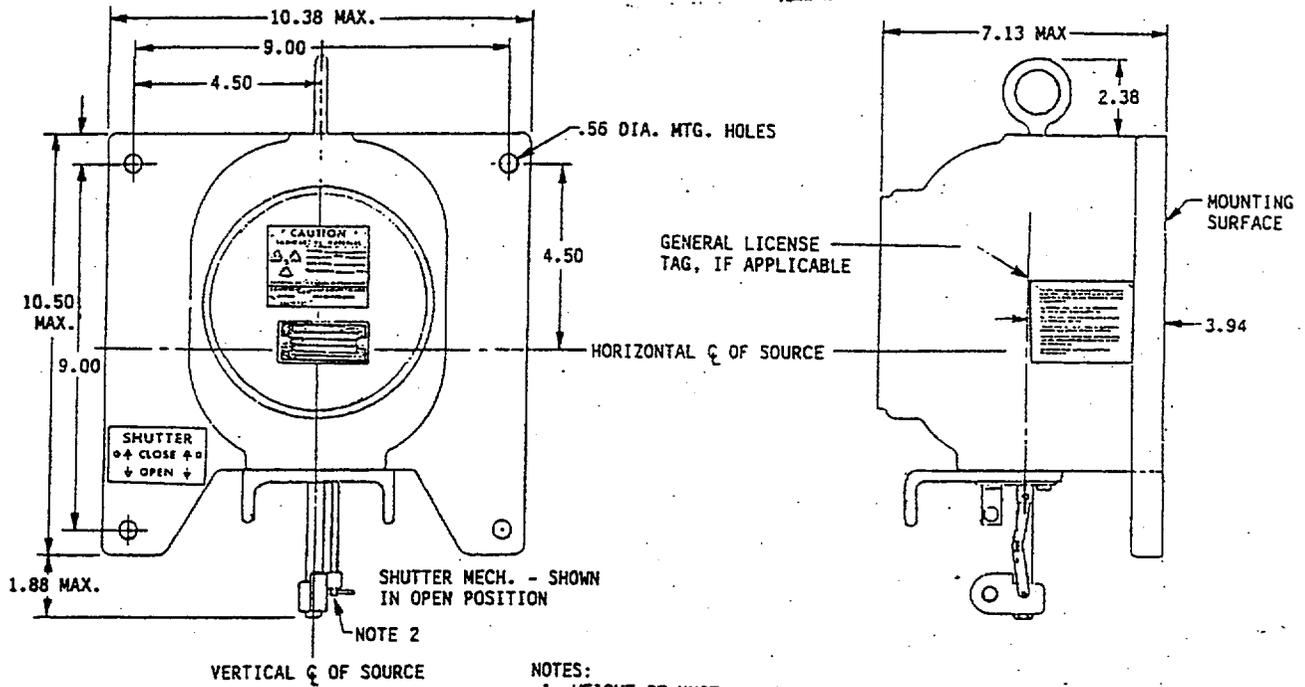
Concurrence: Seung J. Lee
Seung J. Lee

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

ATTACHMENT 1



- NOTES:
 1. WEIGHT OF UNIT - 110 LBS. (APPROX.)
 2. ALLOW CLEARANCE FOR MANUAL OPERATION OF SHUTTER MECHANISM

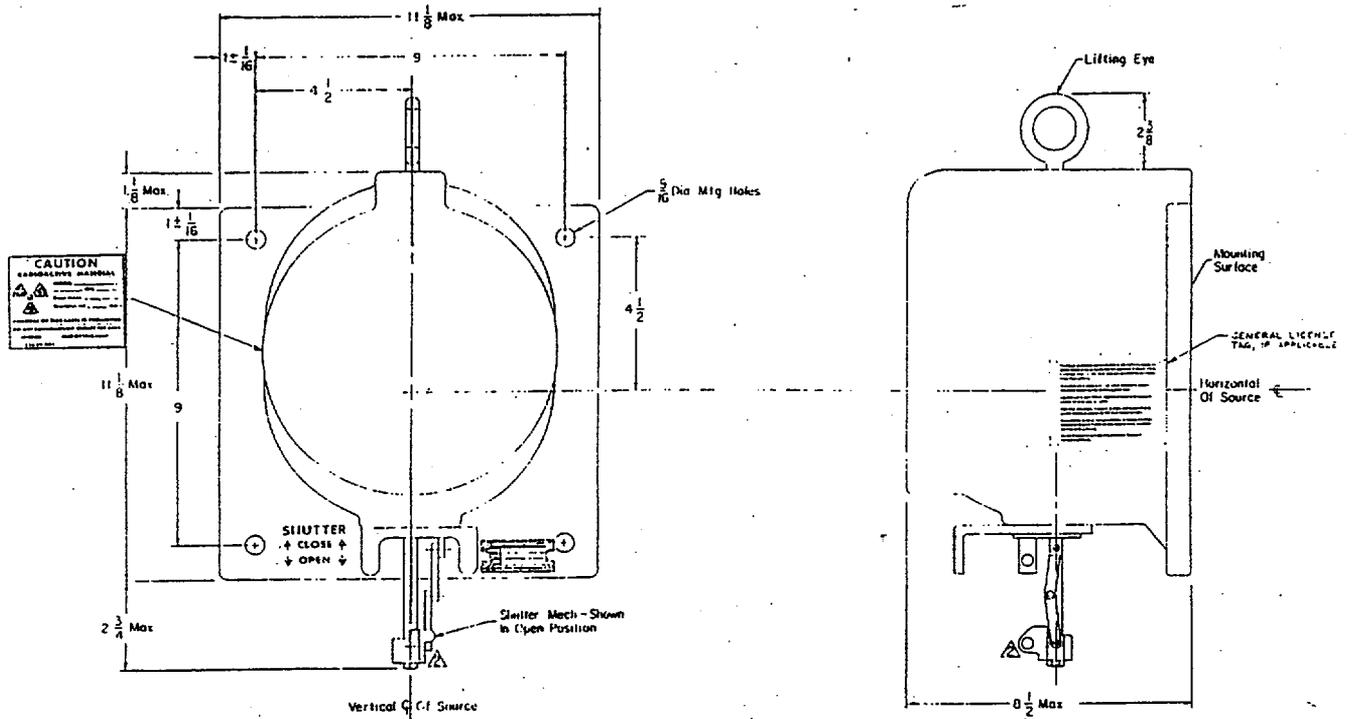
TITLE OUTLINE DIMENSIONS
 AND TAG LOCATIONS
 SOURCE MODEL SH-301

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

ATTACHMENT 2



- Notes
- 1. Weight Of Unit = 210 LBS (Approx)
 - △ Allow Clearance For Manual Operation Of Shutter Mechanism.

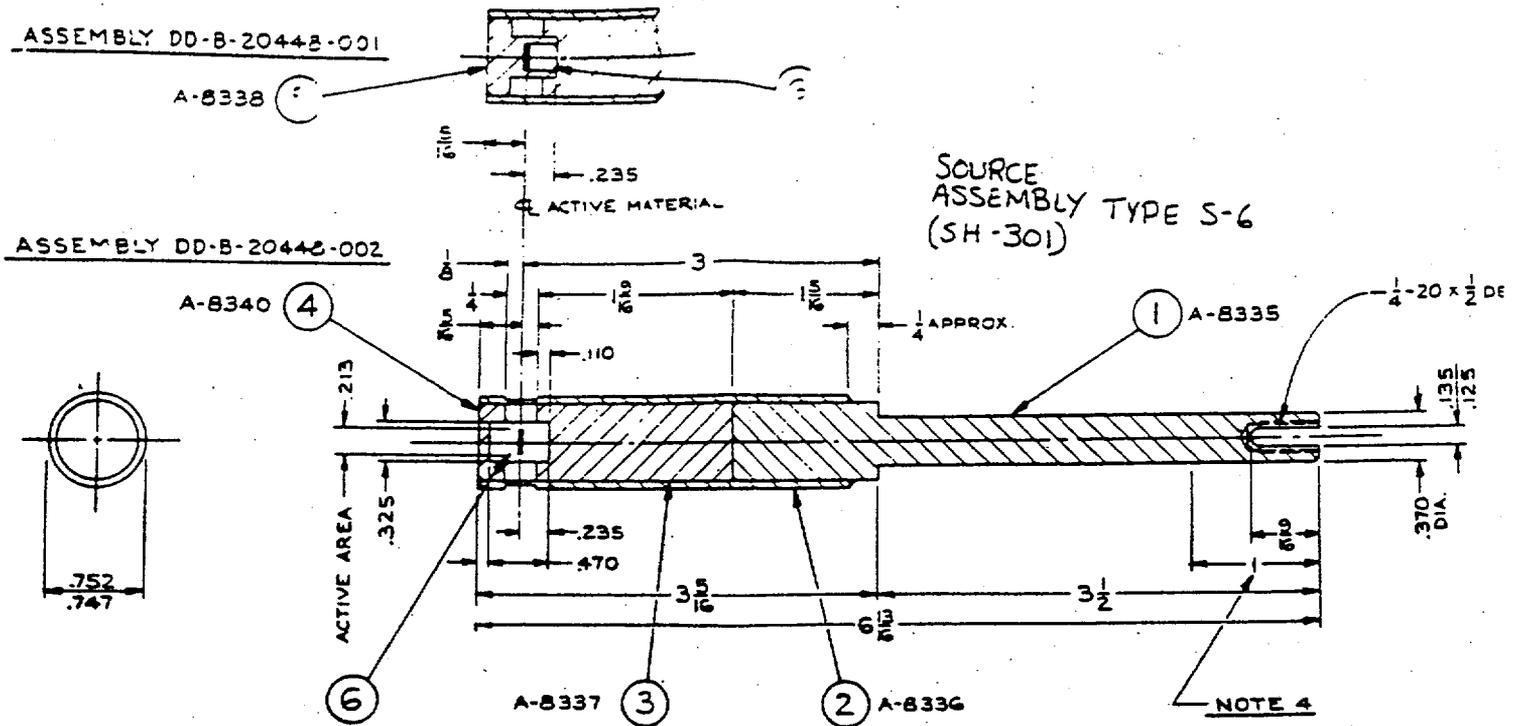
TITLE
 OUTLINE DIMENSION
 AND TAG LOCATIONS
 SOURCE UNITS SH-302 & SH-352

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

ATTACHMENT 3

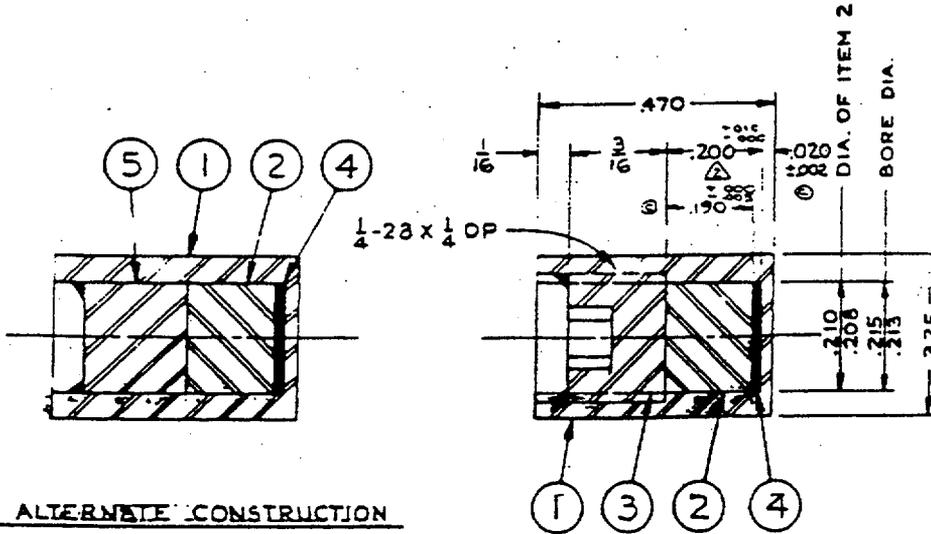


REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

DATE: January 6, 2000

ATTACHMENT 5



ALTERNATE CONSTRUCTION
AM-B-70430-1 AND -2

CS-137, RA-226 OR SR-90 CAPSULE
AM-B-70430-1

S-6 SOURCE CAPSULE - SH-301, -302, -352

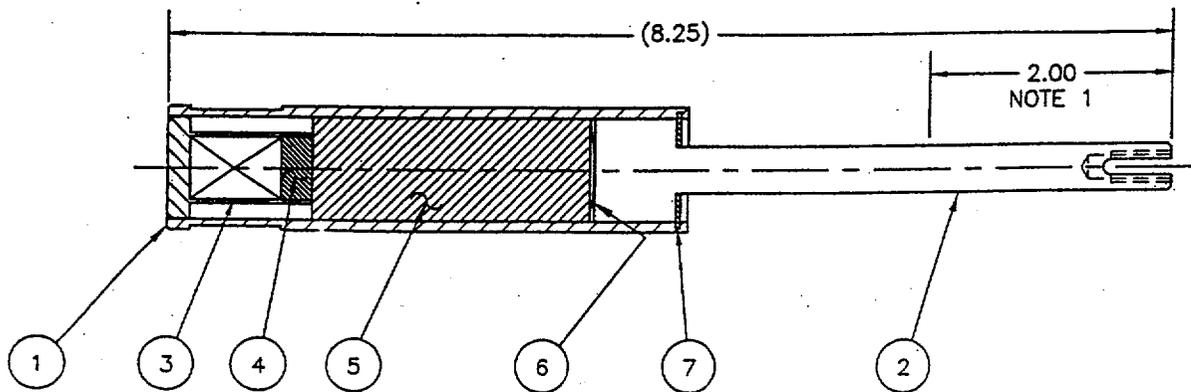
5		RETAINER PLUG-MONEL OR 316 CI
4		ACTIVE ELEMENT
3		1/4-28 x 1/4 HEX. SOC. SET SCREW FLAT PT.
2		SPACER PLUG-MONEL OR 316 CRES
1		CAPSULE SHELL-MONEL OR 316 CRES
ITEM	PART NO.	DESCRIPTION

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

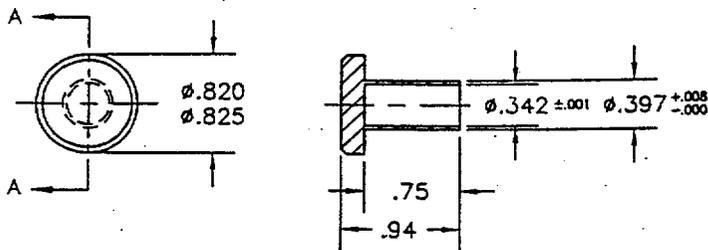
DATE: January 6, 2000

ATTACHMENT 6



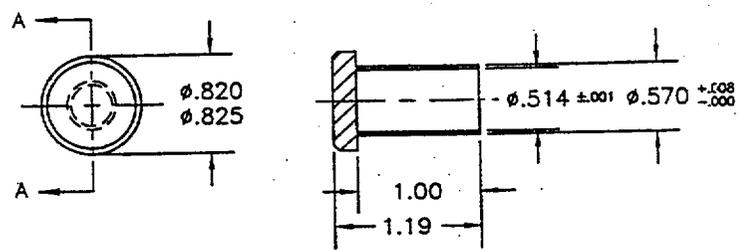
ASSEMBLY

7	RING, RETAINING, INTERNAL
6	WASHER, SPRING, CRESCENT
5	SHIELD, SOURCE
4	SPACER, SOURCE
3	CAPSULE, SOURCE
2	ROD
1	HOUSING/HOLDER, SOURCE
ITEM NO.	DESCRIPTION
ASSEMBLY PART LIST	



SECTION A-A

HOLDER, SOURCE



SECTION A-A

HOLDER, SOURCE

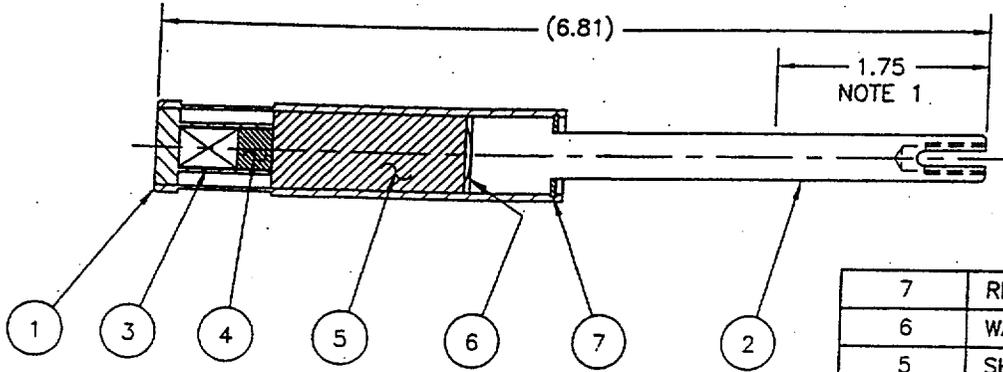
Model S-7 Source Holder Assembly
 and Source Holders

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-109-B

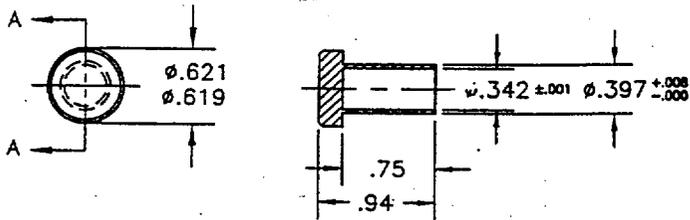
DATE: January 6, 2000

ATTACHMENT 7



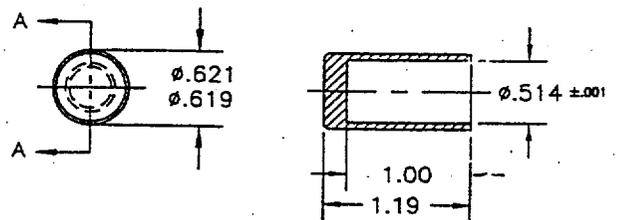
ASSEMBLY

7	RING, RETAINING, INTERNAL
6	WASHER, SPRING, CRESCENT
5	SHIELD, SOURCE
4	SPACER, SOURCE
3	CAPSULE, SOURCE
2	ROD
1	HOUSING/HOLDER, SOURCE
ITEM NO.	DESCRIPTION
ASSEMBLY PART LIST	



SECTION A-A

HOLDER, SOURCE



SECTION A-A

HOLDER, SOURCE

Model S-8 Source Holder Assembly
and Source Holders

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

PAGE 1 OF 5

DEVICE TYPE: Level or Density Gauge

MODEL: LS-101

MANUFACTURER/DISTRIBUTOR:

Aptec-NRC, Inc.
125 Titus Avenue
Warrington, PA 18976
(formerly Nuclear Research Corp.)

SEALED SOURCE MODEL DESIGNATION:

Nuclear Research Corporation
Model S-6

ISOTOPE:

Cesium-137

MAXIMUM ACTIVITY:

50 mCi (1.85 GBq)

LEAK TEST FREQUENCY:

3 years

PRINCIPAL USE:

(D) Gamma Gauge

CUSTOM DEVICE:

_____ YES _____ X _____ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

PAGE 2 OF 5

DEVICE TYPE: Level or Density Gauge

DESCRIPTION:

The Model LS-101 device is designed to be permanently mounted on a vessel in fixed relation to a detector to provide a gamma radiation field for industrial density or level measurement.

The source housing is cast of corrosion resistant Meehanite. The primary beam can be shuttered by a manually operated moveable source holder with the open and closed positions clearly indicated. An indent is provided to hold shutter open during operation. A padlock is provided to lock shutter in closed position. The radiation beam is formed by a collimating slot to extend horizontal and downward at an angle of 45° from the source center line. The source housing is approximately 12.5" x 6.5" x 11.8" (31.75 cm x 16.51 cm x 29.97 cm) and weighs about 180 pounds (81.65 kg).

The Model S-6 source holder is doubly encapsulated in stainless steel or model and capsule are continuous welded. The source holder dimensions are 4.25" (10.8 cm) in length and 1.00" (2.54 cm) in diameter.

DIAGRAM:

See Attachments 1, 2, 3, and 4.

LABELING:

The Model LS-101 devices distributed to specific licenses are labeled in accordance with the provisions of Section 20.1901 of 10 CFR Part 20.

When distributed to general licenses, devices are additionally labeled in accordance with the provisions of Paragraph 32.51(a) (3) of 10 CFR Part 32.

The label tags are made of aluminum, rectangular in shape, 3" x 2.44" (7.62 cm x 6.2 cm), and permanently attached by four carbon steel screws to the source housings. No corrosion problems due to the different materials with the castings of the source housings, the aluminum tags or the carbon steel drive screws under normal industrial conditions has been reported.

Copies of the labels are shown in Attachments 3 and 4.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 26 2000

PAGE 3 OF 5

DEVICE TYPE: Level or Density Gauge

CONDITIONS OF NORMAL USE:

The Model LS-101 device is used for continuous level or density measurements in an industrial environment. Applications include monitoring and controlling density, percent solids, specific gravity, volumes and levels in tanks, silos and bins.

PROTOTYPE TESTING:

No additional testing data was not submitted by the Nuclear Research Corporation on the bases of the previous approval and the fact that there are no design changes from the previously approved design.

These devices have been manufactured and distributed by the Nuclear Research Corporation since 1988 for use under a U.S. Nuclear Regulatory Commission or Agreement State general license.

EXTERNAL RADIATION LEVELS:

The manufacturer reports the following 5 mrem/hr (50 μ Sv/hr) isodose curve for external radiation levels from the device:

<u>Model</u>	<u>Activity</u>		<u>Distance</u>	
	<u>mCi</u>	<u>GBq</u>	<u>Shutter open</u>	
			<u>feet</u>	<u>m</u>
LS-101	50	1.85	6.0	1.83

Maximum radiation levels when the shutter is closed do not exceed 4 mrem/hr (40 μ Sv/hr) at 12" (30.34 cm) from the surface of the housing.

QUALITY ASSURANCE AND CONTROL:

The manufacturer has demonstrated an acceptable quality assurance and control program which has been previously approved by the U.S. Nuclear Regulatory Commission.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

PAGE 4 OF 5

DEVICE TYPE: Level or Density Gauge

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- Installation, maintenance, repair, modification, etc., of the source holder to be done by manufacturer or other persons specifically licensed to perform this service.
- The device shall be distributed to either specific or general licensees of U.S. Nuclear Regulatory Commission or Agreement States.
- Devices shall be labeled in accordance with Section 20.1901 of 10 CFR Part 20. When distributed to persons generally licensed, devices are additionally labeled in accordance with 32.51(a)(3) of 10 CFR Part 32.
- Handling, storage, use, transfer, and disposal: To be determined by the licensing authority.
- The device shall be leak tested at 36 month intervals using techniques capable of detecting 0.005 microcurie (185 Bq) of removable contamination. The test shall be performed by specifically licensed persons.
- This registration sheet and the information contained within the references shall not be changed without the written consent of the U.S. Nuclear Regulatory Commission.

SAFETY ANALYSIS SUMMARY:

Based upon our review of the information and data contained in the references cited below, and that the device has been previously deemed acceptable for licensing purposes by the U.S. Nuclear Regulatory Commission, we continue to conclude that the Model LS-101 is acceptable for licensing purposes.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

PAGE 5 OF 5

DEVICE TYPE: Level or Density Gauge

REFERENCES:

The following supporting documents for the Model LS-101 are hereby incorporated by reference and are made a part of this registry document.

- Nuclear Research Corporation's U.S. Nuclear Regulatory Commission License No. 37-02401-04G and enclosures thereto.
- Nuclear Research Corporation's letters dated February 23, 1983 and August 24, 1984, with enclosures thereto.
- Nuclear Research Corporation's letters dated December 19, 1997, January 15, 1998, April 9, 1998, May 4, 1998, June 26, 1998, and November 11, 1998, with enclosures thereto.
- Aptec-NRC's letters dated August 13, 1999, September 10, 1999, and November 5, 1999, with enclosures thereto.

ISSUING AGENCY:

U.S. Nuclear Regulatory Commission

Date: JAN 06 2000

Reviewer: *Michele L. Burgess*
Michele L. Burgess

Date: JAN 06 2000

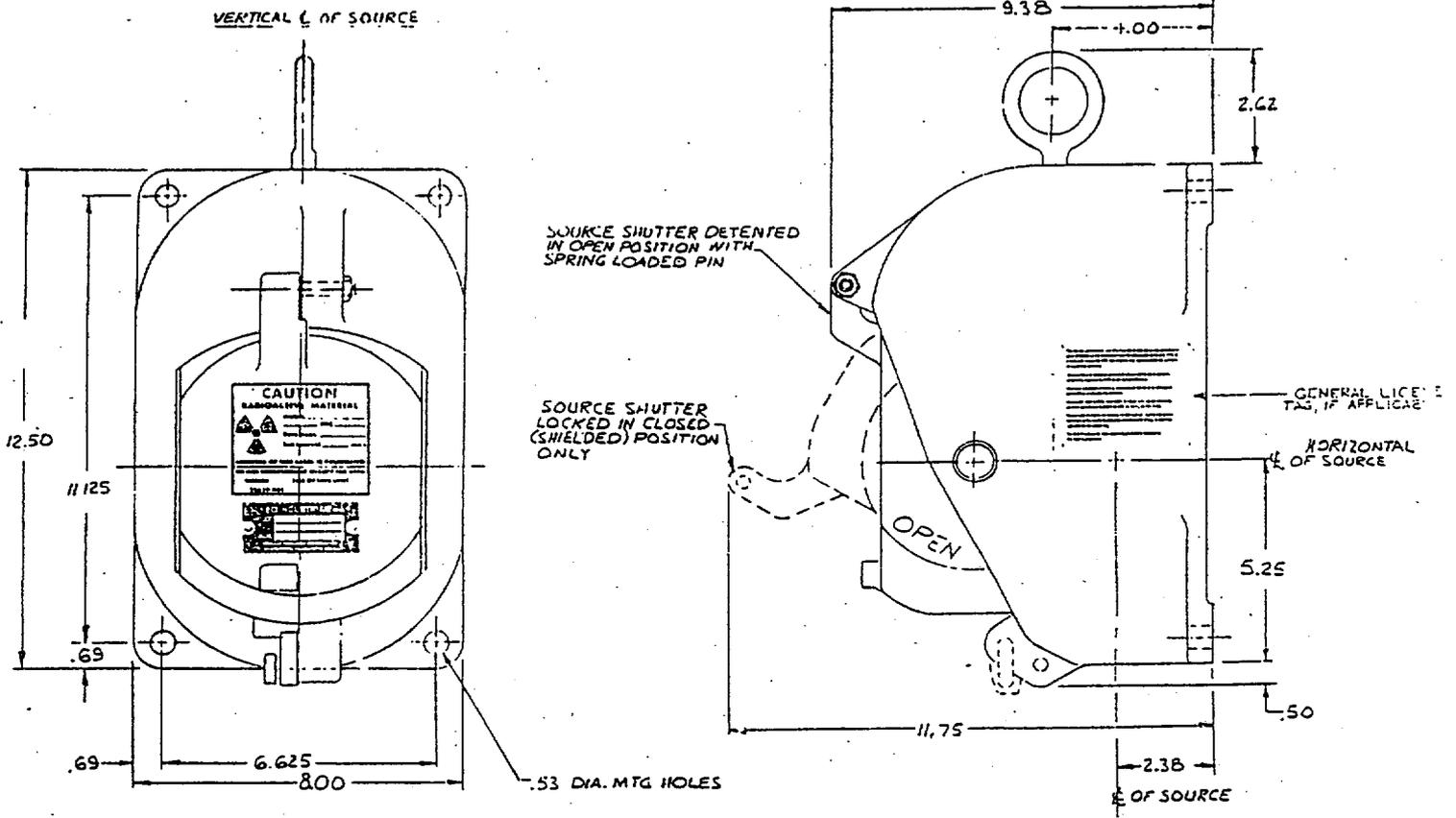
Concurrence: *Seung J. Lee*
Seung J. Lee

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

ATTACHMENT 1



- NOTE:
1. WEIGHT = 180 LBS. (APPROX.)
 2. ALL DIMENSIONS, EXCEPT MOUNTING HOLE DIMENSIONS, ARE APPROXIMATE.

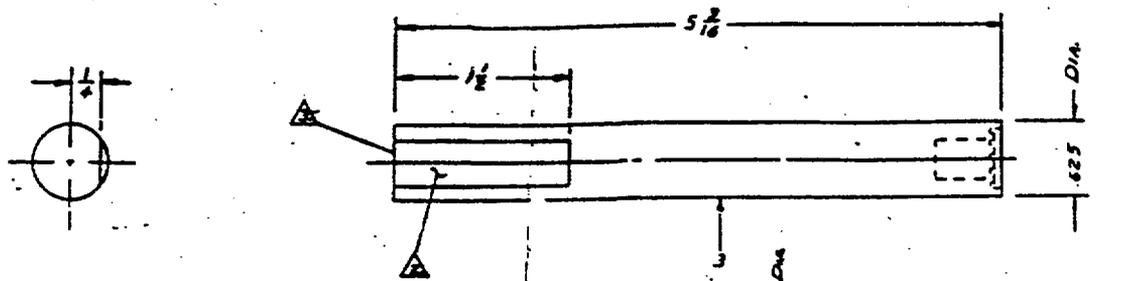
TITLE
 OUTLINE DIMENSIONS
 AND TAG LOCATIONS
 SOURCE UNIT MODEL LS-101

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

ATTACHMENT 2



- ⚠ USE HELIARC WELD ALL AROUND.
- ⚠ SOURCE IDENTIFICATION TO BE ENGRAVED OR STAMPED IN AREA SHOWN - BLACK FILLED LETTERS REQUIRED. INFORMATION REQUIRED IS: ISOTOPE & QUANTITY, I.N. SERIAL NO., I.N. PART NO., MFG. SERIAL NO. & DATE OF MFG. (MO. & YR.)
- ⚠ ENGRAVE OR STAMP I.N. SERIAL NO. ON THIS END. BLACK FILLED NOS. REQUIRED.
- ⚠ ITEM 4 TO BE MECHANICALLY SECURE (STAKE, CRIMP, PUNCH, ETC.) IN ITEM 3 BEFORE SOLDERING OR WELDING.
- ⚠ END OF ITEM 1 & 2 CONTAINING ACTIVE ELEMENT IS TO BE AGAINST ITEM 4.
- ⚠ SOURCE GAUGE (TD-A-21121) REF.

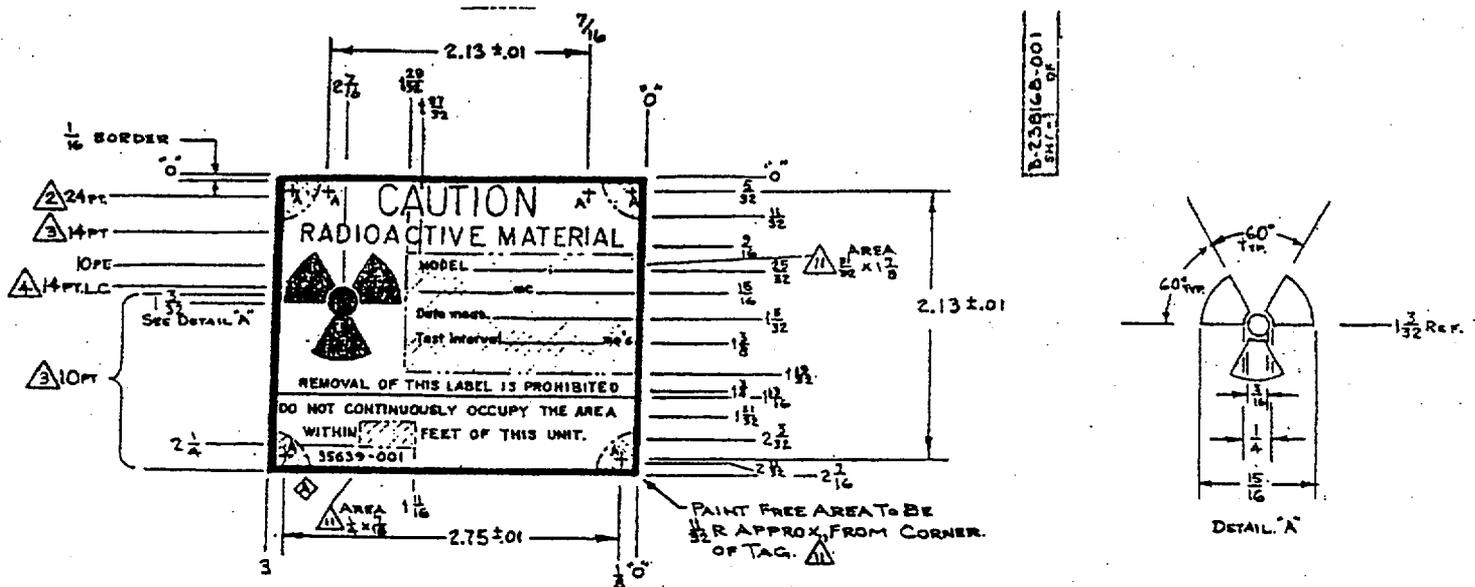
4	SEALING CAP - STAINLESS STL. #22 (.031) GA.
3	SHELL - STAINLESS STL.
2	SOURCE CAPSULE - Co-60
1	SOURCE CAPSULE - Cs-137 OR RA-226
ITEM	DESCRIPTION

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
 SAFETY EVALUATION OF DEVICE
 (AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

ATTACHMENT 3



- NOTES:
1. BLACK LETTERING ON BRIGHT BACKGROUND FOR NOTE 1. YELLOW BACKGROUND TO BE APPLIED OVER ENTIRE PLATE EXCEPT AS NOTED IN
 2. ATOMIC SYMBOL TO BE MAGENTA (FED. STD. 595, NO. 27142) ATOMIC SYMBOL AND YELLOW BACKGROUND MAY BE SILK SCREENED.
 3. 24PT. LETTERING TO BE ALTERNATE GOTHIC 77 J, OR EQUIV.
 4. 10 & 14PT. LETTERING TO BE FUTURA DEMIBOLD, OR EQUIV.
 5. 14PT. LC IS LOWER CASE FUTURA DEMIBOLD, OR EQUIV.
 6. LETTERING TO BE CENTERED OR AS DIMENSIONED.
 7. PROCESS "METALPHOTO" PLATE.
 8. ALL LINES TO BE .015" WIDE MIN.
 9. HOLE PATTERN "A" #27 (.144) DRILL (6 REQ)
 10. TAGS TO BE IN AGREEMENT WITH APPROVED MASTER.
 11. SHADES AREA TO HAVE BRIGHT BACKGROUND & BE PAINT FREE.
 12. AN ALTERNATE PROCESS ON ALUMINUM SUCH AS "PHOTODENSITIZED ANODIZED" USING UA-0078-A AND PE-0001 OR EQUIV. MAY BE USED PROVIDED THE LETTERING OBTAINED BY SUCH PROCESS REMAINS LEGIBLE AT ALL TEMPERATURES UP TO THE MELTING POINT OF THE PLATE.

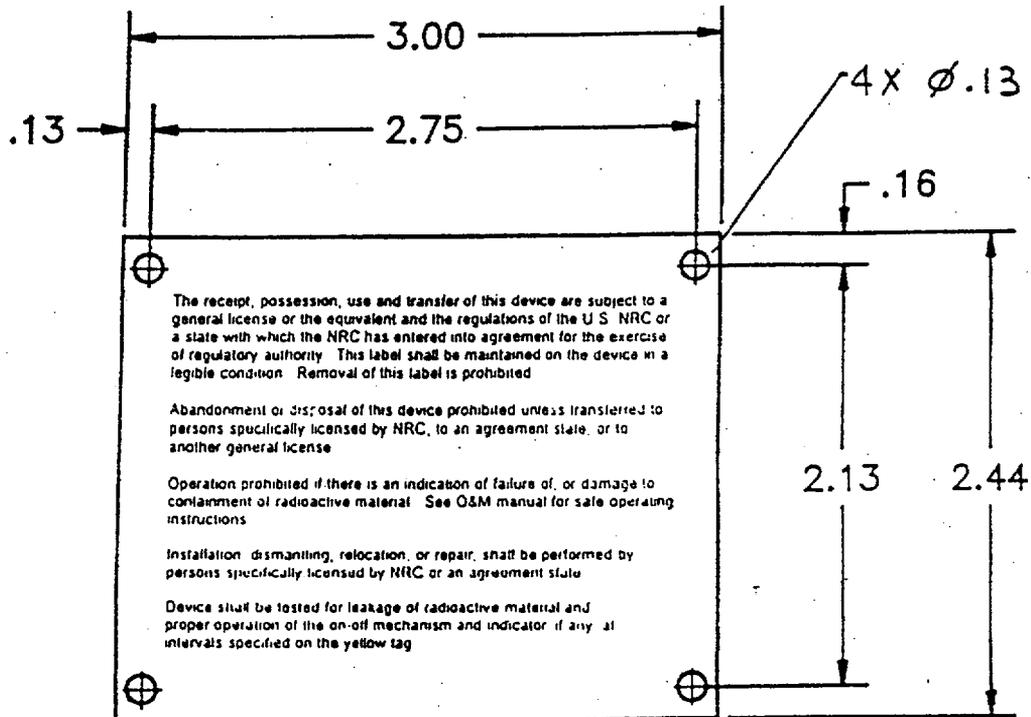
TAG - RADIATION

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: NR-504-D-111-B

DATE: JAN 06 2000

ATTACHMENT 4



NOTES:

1. MATERIAL: PER NRC SPECIFICATION 014083-002.
2. LETTERING BLACK
3. AN ALTERNATE PROCESS ON ALUMINUM SUCH AS "PHOTOSENSITIZED ANODIZED" USING UA-0078-4 AND PE-0001 OR EQUIV. MAY BE USED PROVIDED THE LETTERING OBTAINED BY SUCH PROCESS REMAINS LEGIBLE AT ALL TEMPERATURES UP TO THE MELTING POINT OF THE PLATE.

TITLE
TAG, LICENSE, GENERAL



Hopewell Business Park
 101 Corporation Drive
 Alliquippa, PA 15001
 Phone: 724-378-1900
 Fax: 724-378-1926
<http://www.bsi-1.com>

March 6, 2001

Division of Nuclear Materials Safety
 Nuclear Regulatory Commission, Region 1
 475 Allendale Road
 King of Prussia, PA 19406-1415

Subject: Addition of Gammatrol Sources & Shields

Reference: US-NRC License Numbers 37-21226-02G and 37-21226-01

Dear NRC:

Several months ago, Aptec-NRC agreed to sell their Gammatrol line of gauges and weigh scales to Berthold Systems. Berthold Systems has begun selling Gammatrol equipment to our customers. We are beginning to shift some of the assembly of the electronic components to our location. The sources and shields for Gammatrol equipment have been and still are manufactured by and distributed from Aptec-NRC, 125 Titus Avenue, Warrington, PA in accordance with their licenses 37-02401-01 and 37-02401-06G.

As part of the ongoing process of moving the Gammatrol line, Berthold Systems would like to add the following Gammatrol sources and shields to Item 11 of license 37-21226-02G (for distribution to general licensees) and to Item 12A of License 37-21226-01 (for distribution to specific and general licensees).

<u>Device Model</u>	<u>Isotope</u>	<u>Source Model Number</u>	<u>Maximum Activity</u>
LS-101	Cs-137	Nuclear Research Corporation Model S-6	50 millicuries
SH-301	Cs-137	Nuclear Research Corporation Model S-6 Ohmart Models A2106 and A2102 Texas Nuclear Model 57157C Bebig Model Cs7 P04	50 millicuries
SH-302	Cs-137	Nuclear Research Corporation Model S-6 Ohmart Models A2106 and A2102 Texas Nuclear Model 57157C Bebig Model Cs7 P04	4,000 millicuries
SH-352	Cs-137	Nuclear Research Corporation Model S-6 Ohmart Models A2106 and A2102 Texas Nuclear Model 57157C Bebig Model Cs7 P04	4,000 millicuries



BERTHOLD SYSTEMS, INC.
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Section 9 of license 37-21226-01 should be amended so that we can do everything with Gammatrol devices that we have been doing with Berthold devices. For example:

9. Authorized use:

A. through F. For use and/or possession incident to:

- (1) Installation into or removal from Berthold and Gammatrol devices
- (2) Installation, relocation, repair, and servicing Berthold and Gammatrol devices including the leak testing of sealed sources and radiation surveys of devices

...and so on.

Finally, please amend License 37-21226-01 to include manufacture of the Gammatrol devices. Copies of the current source registrations for these devices are attached. Berthold Systems intends to abide by all of the requirements for manufacture of these devices as specified in the registrations..

Please contact me if you have questions or need any additional information. Thank your for your assistance.

Sincerely,

A handwritten signature in black ink that reads 'Gary Robertson'.

Gary Robertson
President, Berthold Systems, Inc.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

April 16, 2001

Docket Nos. 03020043
03021228
Control Nos. 129426
129427

License Nos. 37-21226-01
37-21226-02G

Gary Robertson
President
Berthold Systems, Inc.
101 Corporation Drive
Aliquippa, PA 15001

SUBJECT: BERTHOLD SYSTEMS, INC., VOIDANCE OF APPLICATION FOR LICENSE
AMENDMENT, CONTROL NOS. 129426 AND 129427

Dear Mr. Robertson:

This concerns the subject application for amendments to your materials licenses. As discussed in our telephone conversation of April 6, 2001, it will be necessary to amend the sealed source and device registry certificates before we can amend the licenses to authorize distribution of the Gammatrol line of devices. Because of the necessary delay required before we can address the requested action, we have voided your current application and you may reapply when the required amendments to the registry certificates are issued.

Sincerely,

A handwritten signature in black ink that reads "John R. McGrath".

John R. McGrath
Senior Health Physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety