

030-38349

NRC FORM 313 (3-2009) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	EXPIRES: 3/31/2012
<h2 style="margin: 0;">APPLICATION FOR MATERIALS LICENSE</h2>			

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.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH: OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001	IF YOU ARE LOCATED IN: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO: MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352
ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS: IF YOU ARE LOCATED IN: ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO: LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415	ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO: NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 612 E. LAMAR BOULEVARD, SUITE 400 ARLINGTON, TX 76011-4125

ICODE
 23909

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 JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item) <input checked="" type="checkbox"/> A. NEW LICENSE <input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____ <input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____	2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code) Science Applications International Corporation (SAIC) 10740 Thornmint Road San Diego, CA 92127
3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED Science Applications International Corporation (SAIC) 10740 Thornmint Road San Diego, CA 92127	4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION Jeffrey R. Johannig, Health Physicist V / RSO TELEPHONE NUMBER <p style="text-align: center; font-size: 1.2em;">(858) 826-9725</p>

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 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 EXPERIENCE.	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.				
9. FACILITIES AND EQUIPMENT.	10. RADIATION SAFETY PROGRAM.				
11. WASTE MANAGEMENT.	12. LICENSE FEES (See 10 CFR 170 and Section 170.31) <table style="width:100%; border: none;"> <tr> <td style="border: none;">FEE CATEGORY</td> <td style="border: none; text-align: center;">31</td> <td style="border: none;">AMOUNT ENCLOSED</td> <td style="border: none; text-align: right;">\$ 14,900.00</td> </tr> </table>	FEE CATEGORY	31	AMOUNT ENCLOSED	\$ 14,900.00
FEE CATEGORY	31	AMOUNT ENCLOSED	\$ 14,900.00		

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, 36, 39, 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.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE SIGNATURE DATE

Gary Jongeward, PhD, Division Manager/VP *[Signature]* **8-17-10**

FOR NRC USE ONLY					
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

573372

ITEM 5: Materials to be distributed

a. Nuclide (Element & mass number)	Manufacturer/Model No.	b. Chemical and/or physical form	c. Possession limit
Any isotope with atomic number 3-83 inclusive	Any valid NRC Exempt Distribution Licensee	Sealed source	Individual sources not to exceed levels specified in Schedule B, 10CFR Part 30.71

ITEM 6: Purpose(s) for which license material will be used

This material will be used in conjunction with radiation measuring devices produced and/or distributed by SAIC's Division 11 located at 10740 Thornmint Road, San Diego, CA 92127. SAIC produces and distributes various radiation detection/measuring devices. These devices include radiation survey meters, radioactive material detection devices, spectroscopy, non-destructive inspection systems, etc. In order to facilitate field check and performance of these devices, a small exempt quantity sealed source is required. These check sources may be delivered to persons exempt from licensing as either:

1. attached to or installed in measuring devices or associated equipment per 10CFR32.14.
2. delivered with, but not installed or attached to the equipment, or otherwise distributed individually per 10CFR32.18.

SAIC will not be manufacturing or producing any of the exempt quantity sources. All sources used for this purpose will be obtained from a supplier with a valid U.S. NRC Exempt distribution license. SAIC will not modify the sources in any way. All labels are to remain intact on the sources as received from the original manufacturer. If relabeling is required, the label will include the radiation warning symbol and/or the words "Radioactive Material". In addition the isotope and activity will be labeled. The intended use of these sources is solely for their radioactive properties. These sources are not to be contained in any food, beverage, cosmetic, drug, or other commodity designed for ingestion or inhalation by, or in an application to, a human being nor incorporated into any device intended for such purposes.

The initial distribution of sources under this license will be for 2 previously distributed devices under SAIC's license 04-23909-01E. First, the IM-239 Air Particle Detectors and their Detector Check source assembly. These devices were previously distributed under another SAIC Division license. That particular

division of SAIC is no longer maintaining the IM-239 device and the end user (US Navy) is requiring upgrades and maintenance of the IM-239 device. SAIC Thornmint would like to take up the contracts with the US Navy for upgrading and maintaining this device. Therefore, SAIC Thornmint is requesting a grandfathered exception for all previous distributions of the IM-239 device. The source is a 0.100 uCi Tc-99 source that will be purchased from an authorized exempt licensed vendor. A drawing of the source/armature is provided as attachment 1.

The second device to be covered in this license is the distribution of a Cs-137 check source installed in the SAIC PELAN Neutron Interrogation System. The PELAN device utilizes a Thermo/MF Physics 3000 series neutron generator that is specifically licensed. For the purposes of this exempt license, the system uses a Cs-137 check source to calibrate the detector/MCA. This is a plastic disk check source with activity less than 10 uCi. The source will be purchased by SAIC from an authorized exempt licensed vendor such as Canberra. A drawing of the bottom base of the PELAN system showing the source location and its containment is provided as attachment 2.

Ref. NUREG 1556, Vol. 8 for Exempt Distribution License – additional information required:

1. 10CFR30.15 Certain Items containing exempt quantities of byproduct material.

- SAIC has met the requirements of 10CFR30.33 and has a Broad Scope possession license (7733-37) issued by the State of California, Dept. of Public Health. California is an Agreement State with the NRC and a copy of the Broad Scope license issued by CA is included in this application as attachment 3. The primary location for this Exempt distribution license is to be:

SAIC
10740 Thornmint Road
San Diego, CA 92127

as noted on SAIC Broad Scope possession license 7733-37.

- All records and primary Quality Control programs will be maintained at the SAIC Thornmint location specified in this NRC license and CA possession license.
- SAIC will distribute items per 32.14, not items per 32.22 or 32.26, therefore there is no requirement for a Sealed Source and Device Registry.
- Records for each transfer of byproduct material shall be kept and a summary report will be forwarded to Director of Federal and State Material and Environmental Management Programs pursuant to requirements in 32.16.

- SAIC Thornmint has an AS9100:2004 Rev. B and ISO9001:2008 certified quality assurance program and a copy of the program certification is included in attachment 4.
- All original labels as purchased from the valid Exempt Distribution Licensee will remain intact and will not be modified. These labels will indicate the isotope and activity of the byproduct material contained in each source.
- Each instrument will contain no more than 1 exempt quantity calibration/check source.
- Each calibration/check source will contain no more than one exempt quantity of material as set forth in 30.71, Schedule B.
- In the operating manual documentation provided to U.S. end users, SAIC will include the following information or similar content:
 - Licensing Requirements: Radioactive material contained in this device is exempt from US NRC or US Agreement State licensing requirements.
 - Safe Handling: Although the quantities of radioactive material contained in these products is extremely small, the basic radiation principles of time, distance, and shielding should be practiced as effective methods for minimizing exposure. Use of radioactive material should be only by responsible persons in authorized areas. Eating, drinking, smoking, and the application of cosmetics should be prohibited in areas of use. Gloves and laboratory coats should be worn when working with liquid radioactive material.
 - Use: Exempt quantity products containing radioactive material should be used only as intended by the manufacturer and in accordance with the instructions provided with the products.
 - Storage: All radioactive materials should be securely stored when not in use.
 - Disposal: These exempt distribution products may be disposed of in regular waste without regard to their radioactive content providing the customer is *not* a specific licensee and all radiation symbols have been removed or defaced. If the customer (laboratory/academic institution) receiving the exempt quantity is a specific licensee, then the customer is subject to the requirements of 10 CFR Part 20 in areas where 10 CFR 30.18 is silent (e.g., waste disposal).

2. 10CFR30.18 Exempt quantities of byproduct material.

- SAIC has met the requirements of 10CFR30.33 and has a Broad Scope possession license (7733-37) issued by the State of California, Dept. of Public Health. California is an Agreement State with the NRC and a copy of the Broad Scope license issued by CA is included in this application as attachment 3. The primary location for this Exempt distribution license is to be:

SAIC
10740 Thornmint Road
San Diego, CA 92127

- as noted on SAIC Broad Scope possession license 7733-37.
- All records and primary Quality Control programs will be maintained at the SAIC Thornmint location specified in this NRC license and CA possession license.
 - SAIC will distribute items per 32.18, not items per 32.22 or 32.26, therefore there is no requirement for a Sealed Source and Device Registry.
 - Records for each transfer of byproduct material shall be kept and a summary report will be forwarded to Director of Federal and State Material and Environmental Management Programs pursuant to requirements in 32.20.
 - The byproduct material is not contained in any food, beverage, cosmetic, drug, or commodity intended for ingestion, inhalation, or application to humans.
 - The material is not incorporated into any manufactured or assembled product or device intended for further commercial distribution.
 - All original labels as purchased from the valid Exempt Distribution Licensee will remain intact and will not be modified. These labels will indicate the isotope and activity of the byproduct material contained in each source. A sample of the label for the source is shown in attachment 5.
 - Each source will contain no more than one exempt quantity set forth in 30.71, Schedule B. (an individual exempt quantity may be composed of fractional parts so that the sum does not exceed unity)
 - Each distribution will contain no more than 10 exempt quantities.
 - The conditions of use for each source shall be normal office conditions and shall not exceed those conditions recommended by the original manufacturer.
 - In the operating manual documentation provided to U.S. end users, SAIC will include the following information or similar content:
 - **Licensing Requirements:** Radioactive material contained in this device is exempt from US NRC or US Agreement State licensing requirements.
 - **Safe Handling:** Although the quantities of radioactive material contained in these products is extremely small, the basic radiation principles of time, distance, and shielding should be practiced as effective methods for minimizing exposure. Use of radioactive material should be only by responsible persons in authorized areas. Eating, drinking, smoking, and the application of cosmetics should be prohibited in areas of use. Gloves and laboratory coats should be worn when working with liquid radioactive material.

- Use: Exempt quantity products containing radioactive material should be used only as intended by the manufacturer and in accordance with the instructions provided with the products.
- Storage: All radioactive materials should be securely stored when not in use.
- Disposal: These exempt distribution products may be disposed of in regular waste without regard to their radioactive content providing the customer is *not* a specific licensee and all radiation symbols have been removed or defaced. If the customer (laboratory/academic institution) receiving the exempt quantity *is* a specific licensee, then the customer is subject to the requirements of 10 CFR Part 20 in areas where 10 CFR 30.18 is silent (e.g., waste disposal).

ITEM 7 - 11: See Referenced CA Broad Scope possession license 7733-37

ATTACHMENT 1

Im-239 Check Source and Detector Assembly

NOTES: UNLESS OTHERWISE SPECIFIED

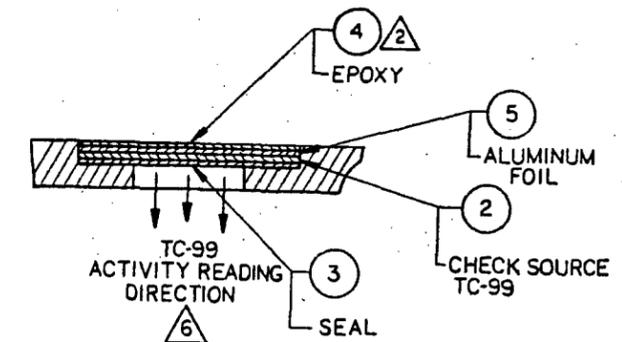
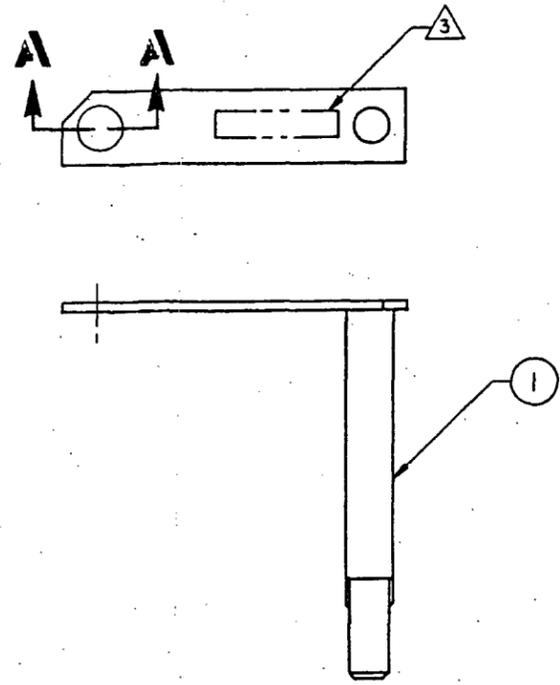
- 1. (M101L) SEAL, FN 3, IS A PLASTIC FOIL OR VARNISH OF THE POLYIMIDE FAMILY, THICKNESS SUFFICIENT TO ACHIEVE GIVEN BETA-RAY EMISSION RATE, (NOTE 7).
- 2. AFTER ASSEMBLING AS SHOWN, FILL REMAINING SPACE WITH EPOXY, FN 4, AS SHOWN IN SECTION A-A EVEN WITH OR BELOW ADJACENT SURFACE OF FN 1.
- 3. ETCH, STAMP OR STENCIL "53711ASSY06525433" (MULTIPLE LINES PERMISSIBLE) AND SOURCE SERIAL NUMBER IN .06 IN HIGH CHARACTERS, IN ACCORDANCE WITH MIL-STD-130. USE INK, FN 6, AND COVER WITH LACQUER, FN 7. LOCATE AS SHOWN.
- 4. SECURE FN 2 AND FN 3 WITH EPOXY ADHESIVE, FN 4.
- 5. CHECK SOURCE HOLDER, FN 1, MAY BE PROVIDED BY NAVY NO ALTERATION TO IT IS PERMITTED EXCEPT FOR THE ADDITION OF THE ITEMS LISTED HEREON BY THE APPROVED SOURCE(S) LISTED. FN 1 SHALL BE MAINTAINED DIMENSIONALLY AND WITH THE SURFACE FINISHES IT IS PROVIDED WITH AT THE TIME OF ASSEMBLY. FN 1 MAY ALSO BE MANUFACTURED BY EITHER APPROVED VENDOR LISTED. OTHER PARTS, FN 2 THROUGH FN 7, ARE GIVEN FOR USE AS IS OR TO PROVIDE STANDARDS FOR ITEMS EQUAL IN ALL RESPECTS.
- 6. (M102D) CALIBRATED BETA-RAY EMISSION RATE AFTER ASSEMBLY SHALL BE $1800 \text{ SECONDS}^{-1} \pm 200 \text{ SECONDS}^{-1}$ OUT OF "WINDOW" INDICATED.
- 7. (M103L) SHEAR TEST OF ENTIRE SURFACE OF SOURCE TO YIELD $1 \times 10^{-9} \text{ uCi}$.

APPROVED SOURCE(S) OF SUPPLY	
VENDOR PART NO.	VENDOR
TCRQ9618	AMERSHAM CORPORATION 2636 SOUTH CLEARBROOK DRIVE ARLINGTON HEIGHTS, IL 60005 FSCM: 51431
NES8050	DU PONT CORPORATION 331 TREBLE COVE ROAD NORTH BILLERICA, MA 01862 FSCM: 51851

SHEETS		STATUS OF REVISIONS		
3	2	DESCRIPTION	DATE	APPROV.
		INDEX CONFIGURATION CONTROL; PRODUCT BASELINE	3-31-82	

DCR PENDING

4193



SECTION A-A
SCALE: 10
ROTATED 90° CCW

CAUTION
RADIOACTIVE
Use Standard Handling Practices for RADIOACTIVE Material. DO NOT Handle With Bare Hands.

ALTERED ITEM DRAWING

ITEM NO.	QTY REQ	FSCM NO.	PART OR IDENTIFYING NO.	SPECIFICATION NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR NOTE
7	AR	81348	TYPE OPTL	TT-L-50	LACQUER, CLEAR	5
6	AR	80244	TYPE I OR III	A-A-208	INK, BLACK	5
5	AR	80244		A-A-1008	ALUMINUM FOIL	5
4	AR	20301		DOD-A-82720	ADHESIVE, MODIFIED EPOXY, FLEXIBLE, TWO PART (METRIC)	5
3	AR				SEAL	5
2	1	5	0312413		RADIOACTIVE SOURCE (M104L)	TC-99 5
1	1		6525438		HOLDER, CHECK SOURCE	5

ITEM NO.	QTY REQ	FSCM NO.	PART OR IDENTIFYING NO.	SPECIFICATION NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR NOTE														
PARTS LIST																				
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES																				
<table border="1"> <tr> <td>FRACTIONS</td> <td>±</td> <td>DECIMALS</td> <td>±</td> <td>DECIMALS</td> <td>±</td> <td>ANGLES</td> </tr> <tr> <td>1/16</td> <td>±</td> <td>0.005</td> <td>±</td> <td>0.005</td> <td>±</td> <td>± 30'</td> </tr> </table>							FRACTIONS	±	DECIMALS	±	DECIMALS	±	ANGLES	1/16	±	0.005	±	0.005	±	± 30'
FRACTIONS	±	DECIMALS	±	DECIMALS	±	ANGLES														
1/16	±	0.005	±	0.005	±	± 30'														
CONTRACT NO. N00024-87-C-4028																				
CONTRACTOR: <i>Michael S. Lee</i>																				
APPROVED: <i>Michael S. Lee</i> DATE: 11/13/02																				
DRAWN: <i>John P. ...</i> DATE: 07/11/10																				
INTERPRET DRAWING IN ACCORDANCE WITH DOD-STD-100																				
BY DIRECTION OF: _____																				
<table border="1"> <tr> <td>SIZE</td> <td>FSCM NO.</td> <td>DWG NO.</td> </tr> <tr> <td>D</td> <td>53711</td> <td>6525433</td> </tr> </table>							SIZE	FSCM NO.	DWG NO.	D	53711	6525433								
SIZE	FSCM NO.	DWG NO.																		
D	53711	6525433																		
SCALE: 2/11 DWG LEVEL: 3 SHEET 1 of 1																				

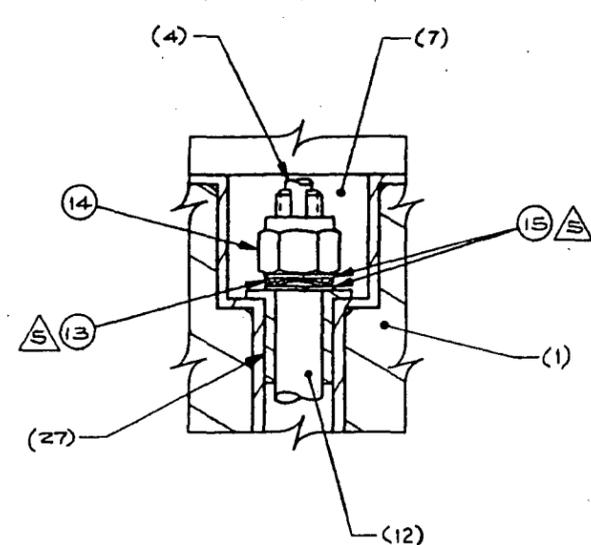
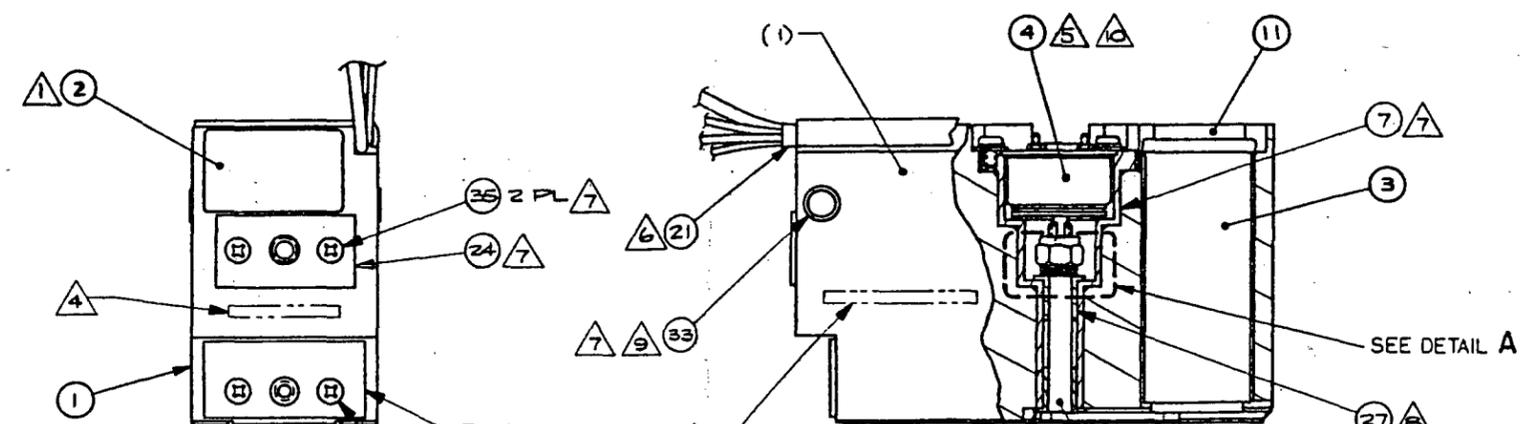
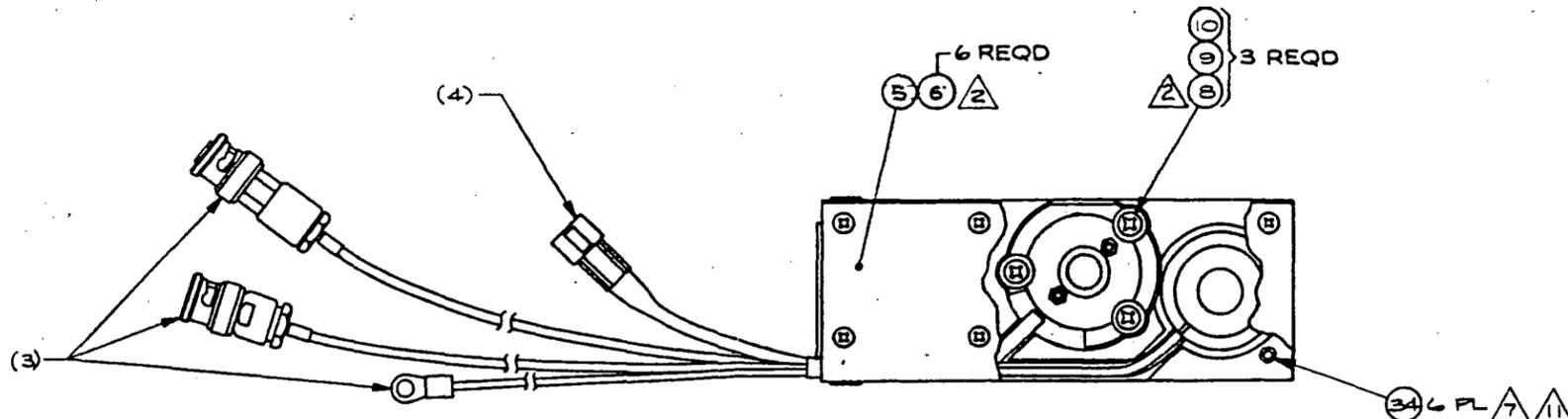
SUMMATION CLASSIFICATION OF CHARACTERISTICS
DOD-STD-210 (OS)
CRITICAL NONE
MAJOR 4

6525430	0309011
NEXT ASSY	USED ON

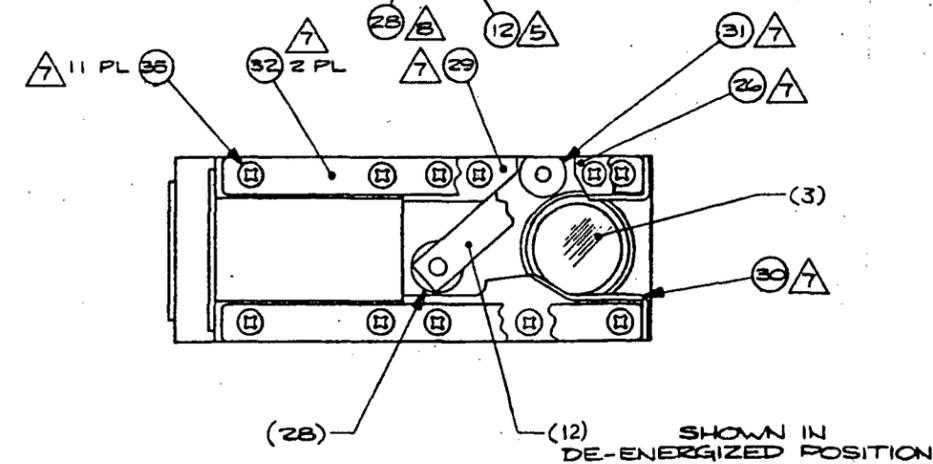
DO NOT SCALE THIS DRAWING

NOTES: UNLESS OTHERWISE SPECIFIED,

- 1 (M101D)ADJUST AND CALIBRATE CHECK SOURCE ASSEMBLY IN ACCORDANCE WITH TEST PROCEDURE, 0309197. RECORD CALIBRATION DATA AND TUBE SERIAL NUMBER ON THREE INFORMATION PLATES, FIND NO. 2. APPLY ONE AT THIS ASSY AND RETAIN REMAINING TWO INFORMATION PLATES WITH THIS ASSY.
- 2 APPLY SEALING COMPOUND, FIND NO. 16, TO SCREWS, FIND NO. 6 AND 8.
- 3 STAMP OR STENCIL, "53711ASSY6525430" IN .12 MINIMUM HIGH CHARACTERS IN ACCORDANCE WITH MIL-STD-130. USE BLACK INK, FIND NO. 17, AND COVER WITH CLEAR LACQUER, FIND NO. 18. LOCATE APPROXIMATELY AS SHOWN.
- 4 MARK SERIAL NUMBER, "SERNO" IN .12 MINIMUM HIGH CHARACTERS IN ACCORDANCE WITH MIL-STD-130. USE BLACK INK, FIND NO. 17, AND COVER WITH CLEAR LACQUER, FIND NO. 18. LOCATE APPROXIMATELY AS SHOWN.
- 5 APPLY SILICONE GREASE, FIND NO. 20, TO MOVING SURFACES.
- 6 APPLY 1 WRAP OF TAPE, FIND NO. 21, AROUND WIRES IN AREA SHOWN TO PREVENT WIRE DAMAGE DUE TO CHAFING.
- 7 ASSEMBLE WITH EPOXY ADHESIVE, FIND NO. 23.
- 8 BOND BEARINGS, FIND NO. 27 AND 28, INTO SOLENOID HOUSING, FIND NO. 7, WITH CYANOACRYLATE ADHESIVE, FIND NO. 22.
- 9 INSTALL SPACER, FIND NO. 33, WITH KNURLED END THIS SIDE.
- 10 (M102V)ADJUST SOLENOID ASSY, FIND NO. 4, RADIALLY SO THAT CHECK SOURCE ASSY, FIND NO. 12, TRAVELS STOP-TO-STOP WITH NO BINDING WHEN SOLENOID IS ENERGIZED.
- 11 FIXTURE TO MAINTAIN HOLE CENTER POSITION DEFINED BY FIND NO. 1 DETAIL DRAWING (6525431) WITHIN ±.005 DIAMETER.
- 12 SHIPPING DOCUMENTS FOR SPARES: "THIS PACKAGE CONFORMS TO THE LIMITATIONS SPECIFIED IN 49CFR173.421 FOR EXPECTED RADIOACTIVE MATERIAL N.O.S. UN 2910, SOURCE Tc99, FORM SOLID, STRENGTH 0.1 MICRO CI."



DETAIL A
SCALE 2/1



(12) SHOWN IN DE-ENERGIZED POSITION

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVAL
-	UNDER CONFIGURATION CONTROL; PRODUCT BASELINE	3-31-88	MSA

**CAUTION
RADIOACTIVE**
Use Standard Handling Practices for RADIOACTIVE Material. **DO NOT** Handle With Bare Hands.

SEE SEPARATE PARTS LIST PL 6525430

SUMMARY
CLASSIFICATION OF CHARACTERISTICS
DOD-STD-2101
CRITICAL NONE
MAJOR 2

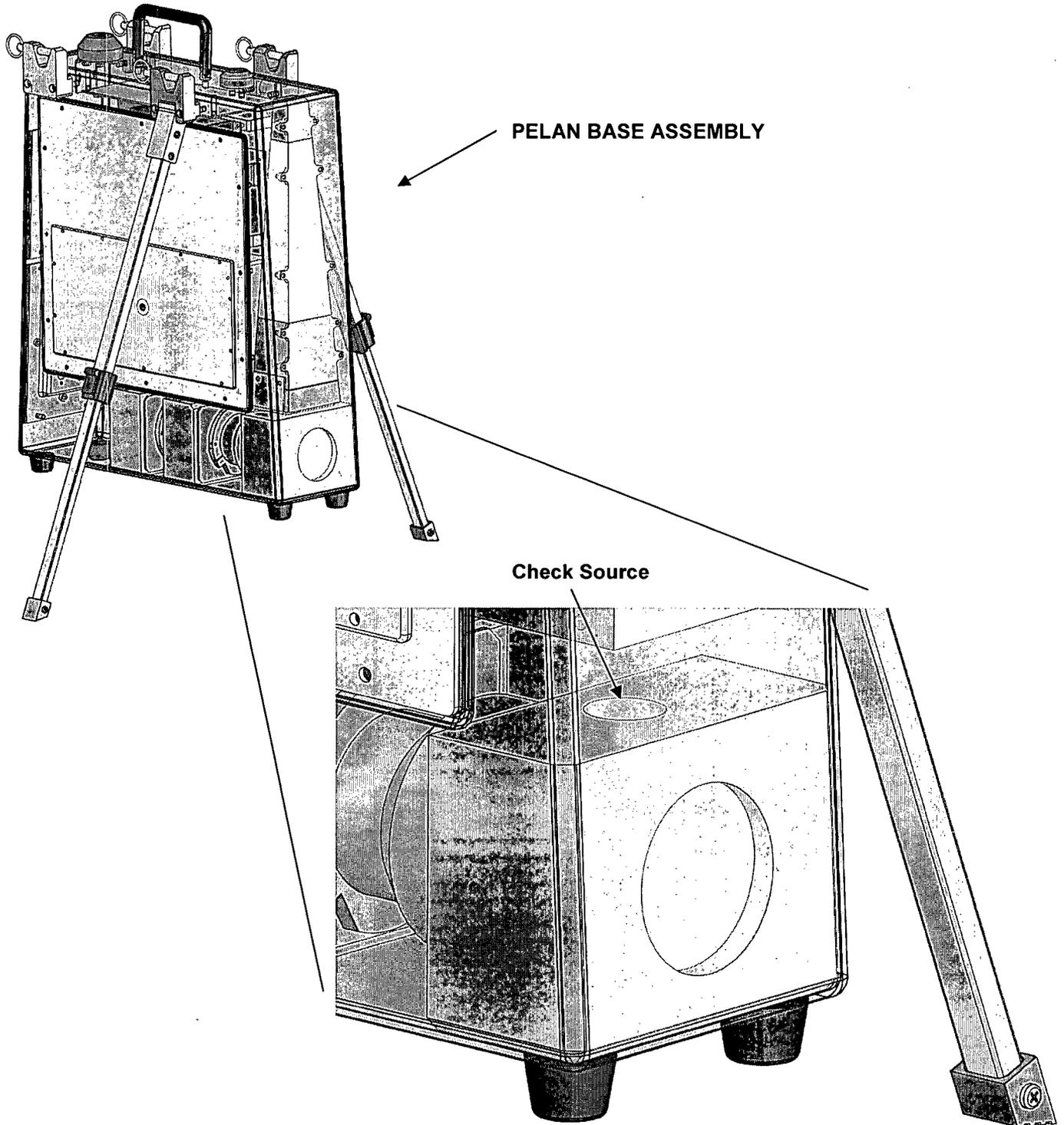
0309017	0309011
NEXT ASSY	USED ON

FIND NO.	QTY REQ	FECM NO.	PART OR IDENTIFYING NO.	SPECIFICATION NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR NOTE
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES						
FRACTIONS	2	DECIMALS	2	ANGLES		
CONTRACT NO. H00024-87FC-4028						
CONTRACTOR: MSA						
APPROVED: [Signature] DATE: 3/15/88						
DRAWN: [Signature] DATE: 3/16/88						
INTERPRET DRAWING IN ACCORDANCE WITH DOD-STD-109						
					DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, D.C. 20362	
					DETECTOR / CHECK SOURCE ASSEMBLY (IAIA)	
SIZE D		FECM NO. 53711		DWG NO. 6525430		

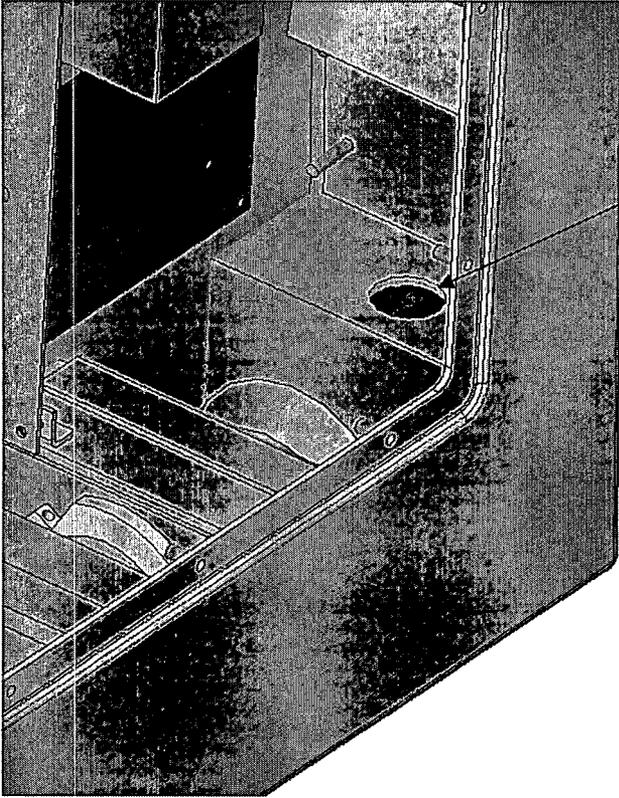
ATTACHMENT 2

PELAN Check Source Location and Containment

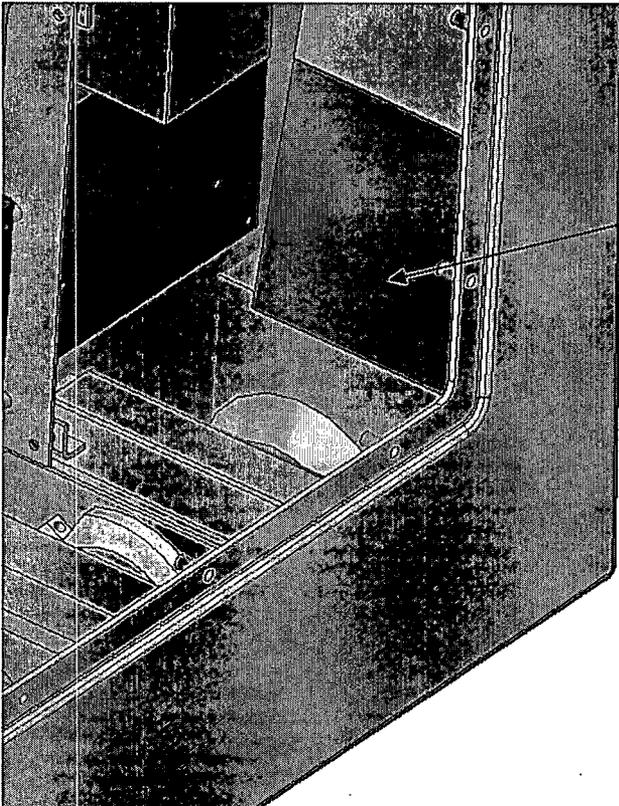
PELAN Cs CHECK SOURCE LOCATION



PELAN CHECK SOURCE CONTAINMENT



Check source is wedged into a block of foam rubber, and sits on top of a metal cylinder.



A metal piece bolts into the chassis and covers the hole.

ATTACHMENT 3

SAIC CA Broad Scope License 7733-37

State of California-Health and Human Services Agency

California Department of Public Health

Page 1 of 7 pages

RADIOACTIVE MATERIAL LICENSE

Pursuant to the California Code of Regulations, Division 1, Title 17, Chapter 5, Subchapter 4, Group 2, Licensing of Radioactive Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, use, possess, transfer, or dispose of radioactive material listed below; and to use such radioactive material for the purpose(s) and at the places(s) designated below. This license is subject to all applicable rules, regulations, and orders of the Department of Public Health now or hereafter in effect and to any standard or specific condition specified in this license.

<p>1. Licensee Science Applications International Corporation COMPANY PRIVATE</p> <p>2. Address 10730/10740 Thornmint Road San Diego, CA 92127</p> <p>Attention: Jeffrey Johanning Radiation Safety Officer</p>	<p>3. License Number 7733-37 Amendment Number: 2</p> <hr/> <p>4. Expiration date March 05, 2019 (2)</p> <hr/> <p>5. Inspection agency Radiologic Health Branch South</p>
---	--

License Number 7733-37 is hereby amended as follows:

6. Nuclide	7. Form	8. Possession Limit
A. Americium -241	A. Sealed Source	A. 4 sources not to exceed 1 millicurie each.
B. Am-Be	B. Sealed sources	B. 2 sources not to exceed 10 millicuries each.
C. Barium-133	C. Sealed sources	C. 4 sources not to exceed 1 millicurie each.
D. Barium-133	D. Sealed source	D. 2 sources not to exceed 100 millicuries each.
E. Californium-252	E. Sealed sources	E. 4 sources not to exceed 10 millicuries each.
F. Cesium-137	F. Sealed sources	F. 4 sources not to exceed 10 millicuries each.
G. Cesium-137	G. Sealed sources (Amersham Model CDCQ8081, CDCQ8082, CDCB4217 and QSA Global CDC.700 Series)	G. 5 sources not to exceed 300 millicuries each.
H. Cobalt-60	H. Sealed sources	H. 4 sources not to exceed 1.25 millicuries each..
I. Cobalt-60	I. Sealed source (Omhart SHF4)	I. 4 sources not to exceed 1.0 curie each.
J. Hydrogen-3	J. Sealed sources(Mf Physics Corp. A-3000 Series Neutron Generator Tubes)	J. 5 sources not to exceed 7 curies each.
K. Selenium -75	K. Sealed source (Amersham Model A424-25W Series)	K. 2 sources not to exceed 4 curies each.
L. Plutonium -239	L. Sealed source	L. 2 sources not to exceed 1 microcurie each.
M. Any isotope with atomic number 3- 83 inclusive	M. Sealed source	M. Not to exceed 2 curies each. Total not to exceed 10 curies.
N. Any isotope with atomic number 84-105 inclusive except source material (SM) and Special Nuclear Material (SNM)	N. Sealed sources	N. Not to exceed 0.5 curie each. Total not to exceed 2 curies.

State of California-Health and Human Services Agency

California Department of Public Health

Page 2 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment : 2

6. Nuclide	7. Form	8. Possession Limit
O. Source Material	O. Any	O. Not to exceed 300 lbs.
P. Strontium-90	P. Sealed sources	P. Two sources not to exceed 3 millicuries each.
Q. Cobalt-57	Q. Sealed source	Q. Two sources not to exceed 3 millicuries each.
R. Plutonium -239	R. Foils and sealed sources	R. Not to exceed 50 microcuries each. Total not to exceed 100 microcuries total (1600 micrograms).
S. Fluorine-18	S. Polypropylene capsules (adsorbed on anion exchange resin)	S. Not to exceed 3 curies.

9. Authorized Use

A.-I. & P.-R.

To be used for research and development as defined in 17CCR 30100 for gauging systems, calibration, testing, measurement, instructional/training purposes, and incorporation & distribution of prototype or custom products, as authorized under a specific NRC or Agreement State License and/or Sealed Source and Device Registry.

- J. To be used in research and development as defined in 17CCR 30100, of neutron interrogation systems components in the manufacturing and distribution of SAIC Neutron Interrogation Systems.
- K. To be used in Amersham exposure device Model 660 System (Model 660A) for industrial radiography or for research and development (as defined in 17 CCR 30100) of radiation detectors or inspection systems.

L.-O. & S.

To be used in research and development as defined in 17CCR 30100 for gauging systems, calibration, testing, measurement, instructional purposes and incorporation into products as authorized under a specific NRC or Agreement State License and/or Sealed Source and Device Registry.

LICENSE CONDITIONS

10. Radioactive material shall be used only at the following locations:

- (a) 10730/10740 Thornmint Road, San Diego, CA.
- (b) 4161 Campus Point Court, San Diego, CA.
- (c) Temporary job sites of the licensee in areas not under exclusive federal jurisdiction throughout the State of California (Subitems A-Q)

State of California-Health and Human Services Agency

California Department of Public Health

Page 3 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment: 2

11. This license is subject to an annual fee for sources of radioactive material authorized to be possessed at any one time as specified in Items 6, 7, 8 and 9 of this license. The annual fee for this license is required by and computed in accordance with Title 17, California Code of Regulations, Sections 30230-30232 and is also subject to an annual cost-of-living adjustment pursuant to Section 100425 of the California Health and Safety Code.
12. Radioactive material may be used only by, or under the supervision of, individuals designated by the Radiation Safety Committee.
13. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 7, 8 and 9 of this license in accordance with the statements, representations, and procedures contained in the documents listed below. The Department's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
 - (a) The new license application, RH 2050 Form, dated June 23, 2008, with attachments, signed by Jeffrey Johanning, Radiation Safety Officer, Phillip Young, Deputy Division Manager, and Gary Jongeward, Ph.D., Division Manager. The attachments include "Radiation Safety Plan", RH 2050As, and drawings of the facility. The application is supplemented by letters dated January 29, 2009 and February 27, 2009, both signed by Jeffrey Johanning, requesting additional information for the new license, and adding industrial radiography.
 - (b) The letters dated May 12, 2009, December 10, 2009, and February 16, 2010, all signed by Jeffrey Johanning, Radiation Safety Officer, regarding security of additional plutonium sources.
 - (c) The letters with attachments, dated May 26, 2010, July 8, 2010, and July 13, 2010, all signed by Jeffrey Johanning, Radiation Safety Officer, regarding addition of fluorine-18 and related procedures.
14.
 - (a) The Radiation Safety Officer in this program shall be Jeffrey Johanning.
 - (b) The Chairperson of the Radiation Safety Committee Gary A. Jongeward, VP.
 - (c) The Alternate Radiation Safety Officer in this program shall be William E. Hood.
15. In lieu of the leak tests required by Title 17, California Code of Regulations, Section 30275 (c), sealed sources can be tested for leakage and/or contamination at longer intervals when specified in a certificate of registration issued by the U.S. Nuclear Regulatory Commission, an Agreement State or a Licensing State. When a longer interval stipulated in a certificate of registration is used, the certificate must be maintained on file and available for inspection for as long as the associated leak test records are retained.
16. Quantitative analytical assays for the purpose of tests for leakage and/or contamination of sealed sources shall be performed only by persons specifically authorized to perform that service.
17. The licensee is authorized to perform tests for leakage and/or contamination of sealed sources. The following tests may be performed for sources possessed under this license and as a customer service:
 - (a) Collection of wipe test samples from sealed sources and devices containing sealed sources.
 - (b) Analysis of materials collected by the licensee as stated in (a) above for the amount of radioactivity. Reports to customers of analysis shall be in microcuries.

State of California-Health and Human Services Agency

California Department of Public Health

Page 4 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment : 2

18. Sealed sources possessed under this license shall be tested for leakage and/or contamination as required by Section 30275(c) of the California Code of Regulations.
19. The following individuals are authorized to collect wipe test samples of sealed sources possessed under this license using leak test kits acceptable to the California Department of Public Health:
 - (a) The Radiation Safety Officer
 - (b) The Alternate Radiation Safety Officers
 - (c) Qualified individuals designated in writing by the Radiation Safety Officer
20. Records of leak test results shall be kept in units of microcuries and maintained for inspection. Records may be disposed of following Department inspection. Any leak test revealing the presence of 0.005 microcuries or more of removable radioactive material shall be reported to the Department of Public Health, Radiologic Health Branch, MS 7610, P.O. Box 997414, Sacramento, CA 95899-7414, within five days of the test. This report shall include a description of the defective source or device, the results of the test, and the corrective action taken.
21. Except for alpha sources, the periodic leak test required by Condition 15 does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
22. The licensee is authorized to calibrate radiation detection instruments as a customer service and for internal use/applications.
23. The licensee shall conduct a physical inventory every six months to account for all sealed sources and/or devices received and possessed under the license. Records of the inventories shall be maintained for inspection, and may be disposed of following Department inspection.
24. All uses of radioactive material under this license shall be conducted in accordance with the user's application and modifying requirements of the Radiation Safety Committee. The review of intramural applications shall include findings with respect to matters specified in Title 17, California Code of Regulations, Section 30194. Documentation of these findings shall be maintained for Department inspection.
25. Radioactive materials shall be used by occupational workers in such a manner that the dose limits specified in Title 10, Code of Federal Regulations, Part 20, Subpart C, Sections 20.1201 through 20.1208 are not exceeded.
26. The licensee shall monitor occupational exposure to radiation and shall supply and require the use of individual monitoring devices by personnel as required by Title 10, Code of Federal Regulations, Part 20, Section 20.1502 (a).
27. The licensee shall comply with all requirements of Title 17, California Code of Regulations, Section 30373 when transporting or delivering radioactive materials to a carrier for shipment. These requirements include; (packaging, marking, labeling, loading, storage, placarding, monitoring, and accident reporting). Shipping papers shall be maintained for inspection pursuant to the U.S. Department of Transportation requirements (Title 49, Code of Federal Regulations, Part 172, Sections 172.200 through 172.204).
28. Before radioactive materials may be used at a temporary job site at any federal facility, the jurisdictional status of the job site must be determined. If the jurisdictional status is unknown, the federal agency should be contacted to determine if the job site is under exclusive federal jurisdiction. A response shall be obtained in writing or a record made of the name and title of the person at the federal agency who provided the

State of California Health and Human Services Agency

California Department of Public Health

Page 5 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment : 2

determination and the date that it was provided. Authorization for use of radioactive materials at the job sites under exclusive federal jurisdiction shall be obtained either by:

- (a) Filing an NRC Form-241 in accordance with the Code of Federal Regulations, Title 10, Part 150.20 (b), "Recognition of Agreement State Licenses", or
- (b) By applying for a specific NRC license.

Before radioactive material can be used at a temporary job site in another State, authorization shall be obtained from the State if it is an Agreement State, or from the NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.

29. The licensee shall distribute only sealed sources and/or devices for which a Sealed Source and Device Registry Certificate has been issued if required by the California Department of Public Health, the U.S. Nuclear Regulatory Commission, or other Agreement State. Sealed sources and/or devices distributed must adhere to the design specifications described in the Sealed Source and Device Registry Certificate if applicable. Any changes in the design or specifications of these sealed sources and/or devices require the manufacturer to apply for and receive an amendment to the Sealed Source and Device Registry Certificate prior to distribution if applicable. The licensee may distribute sources and/or devices without a Sealed Source and Device Registry Certificate provided the recipient is authorized to possess such items by license condition or applicable State or Federal regulations and laws.
30. The licensee is authorized to hold radioactive materials with a physical half-life of less than 90 days for decay in storage before disposal in ordinary trash provided:
 - (a) Radioactive waste to be disposed of in this manner shall be held for decay in storage for at least 10 half-lives.
 - (b) Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
31. Pursuant to Title 17, California Code of Regulations, the licensee is authorized to possess up to 500 kilograms (1,102 pounds) of natural or depleted uranium used for purposes of shielding or collimation in radiographic exposure devices listed in Item 9 of this license.
32. At least 30 days prior to vacating any address of use listed in Condition 10 of this license, the licensee shall provide written notification thereof to the California Department of Public Health, in accordance with Title 17, California Code of Regulations, Section 30256 (b).
33. At any time the licensee is engaged in the performance of industrial radiography by authority of this license, at either a permanent or a temporary job site, he shall have a current copy of each of the following documents available for inspection at the site:
 - (a) Title 17, California Code of Regulations.
 - (b) This license.
 - (c) The licensee's operating and emergency procedures.
34. The licensee shall not authorize any radiographer or radiographer's assistant to use any model of a radiographic exposure device, related handling tool, or radiation survey instrument until the radiographer or radiographer's assistant has been trained in the use of such equipment, and has demonstrated competence in its use. For each radiographer or radiographer's assistant, the licensee shall maintain the following records available for inspection:

State of California-Health and Human Services Agency

California Department of Public Health

Page 6 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment: 2

- (a) Training received by the radiographer or radiographer's assistant in the use of such equipment, including dates, duration, and name of instructor.
 - (b) Each radiographic exposure device for which the radiographer or radiographer's assistant has demonstrated competence in its use, including date of demonstration of competence.
35. (a) The licensee shall conduct refresher training for all radiographers and radiographer's assistants at intervals not to exceed twelve months. Such training shall include, but not be limited to:
- (1) Title 17, California Code of Regulations, with emphasis on Sections 30330-30336.
 - (2) This license.
 - (3) The licensee's operating and emergency procedures, with emphasis on any changes which have been made within one year.
 - (4) Equipment used under this license for performance of industrial radiography with emphasis on equipment, which has been used by the licensee for less than one year.
 - (5) Prevention of overexposures of personnel, with emphasis on prevention of actions and circumstances within the past year which have caused, or threatened to cause, overexposures.
- (b) The licensee shall maintain available for inspection records of refresher training described in (a) above, including:
- (1) Names of instructors.
 - (2) Names of individuals trained.
 - (3) Dates and duration of training.
36. A copy of this license and a copy of all records and documents pertaining to this license shall be maintained available for inspection at 10730/10740 Thornmint Road, San Diego, CA.
37. The licensee shall comply with the requirements described in the RHB document entitled "Increased Controls (IC) for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern".

The IC requirements shall be implemented before taking possession of any IC quantities. Upon completion of implementation, the licensee shall notify the Radiologic Health Branch (RHB) of the California Department of Public Health (CDPH) by telephone and in writing. Written notification is to be sent to:

CDPH
Radiologic Health Branch
Radioactive Material Licensing
ATT: Increased Controls Program
MS 7610
PO Box 997414
Sacramento, CA 95899-7414

Telephone notification shall be made to the local RHB Inspection Office. Local RHB Inspection Office telephone numbers are:

Northern California: (510) 620-3416 or (510) 620-3419
Southern California: (714) 257-2025 or (714) 257-2031

State of California-Health and Human Services Agency

California Department of Public Health

Page 7 of 7 pages

RADIOACTIVE MATERIAL LICENSE

License Number: 7733-37

Amendment : 2

Los Angeles County:	(213) 351-7897 or (213) 351-7387
San Diego County:	(858) 694-3621 or (858) 694-3616

- 38. The licensee shall comply with the requirements described in the Department of Public Health, Radiologic Health Branch letter, with enclosure entitled, "Specific Requirements Pertaining to Fingerprinting and Criminal History Records Checks," dated June 5, 2008, and California order dated June 5, 2008, signed by Gary Butner, Acting Chief, Radiologic Health Branch. The licensee shall complete implementation of said requirements by the first day that radionuclides in quantities of concern are possessed at or above the limits specified in "Table 1: Radionuclides of Concern" contained within the Order.
- 39. The licensee will provide the Low Level Radioactive Waste (LLRW) reports specified in the California Health and Safety Code section 115000.1(h) to the California Department of Public Health (CDPH) on an annual basis for both shipped and stored LLRW. Alternatively, LLRW shipment information may be provided on a per shipment basis. LLRW shipment information and annual reports shall be mailed to:

Attn: LLRW Tracking Program
 California Department of Public Health
 Radiologic Health Branch MS 7610
 P.O. Box 997414
 Sacramento, CA 95899-7414

Issued for the California Department of Public Health

Date: 8/3/10

By: 

Ronald Rogus
 Senior Health Physicist
 Radiologic Health Branch
 MS 7610, P.O. Box 997414
 Sacramento, CA 95899-7414

ATTACHMENT 4

SAIC Thornmint AS9100:2004 Rev. B Certification



PERRY JOHNSON REGISTRARS, INC.

Certificate of Registration

Perry Johnson Registrars, Inc., has assessed the Quality Management System of:

SAIC / Div. 11 – Advanced Engineering and Applied Sciences
10740 Thornmint Road, San Diego, CA 92127 United States

*(Hereinafter called the Organization) and hereby declares that
Organization is in conformance with:*

ISO 9001:2008 and AS9100:2004 Rev. B

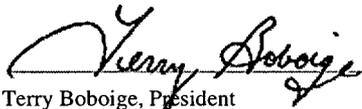
This Registration is in respect to the following scope of supply:

**Design, Development, Fabrication, Integration, Testing,
and Maintenance of Hot Structures Projects**

(The assessment was performed in accordance with AS9104A. PJR is accredited under the aerospace Registrar Management Program.)

Such products shall be manufactured by the Organization at, or such processes or services shall be offered at or from, only the address given above. This Registration is granted subject to the system rules governing the Registration referred to above, and the Organization hereby covenants with the Assessment body duty to observe and comply with the said rules.

For PJR:


Terry Boboige, President

Perry Johnson Registrars, Inc. (PJR)
26555 Evergreen, Suite 1340
Southfield, Michigan 48076
(248) 358-3388



The validity of this certificate is dependent upon ongoing surveillance.

Effective Date:
May 8, 2010

Expiration Date:
May 7, 2013

Certificate No.:
C2010-01321

ATTACHMENT 5

Sample Label for Exempt Check Source



Attachment 5