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October 12, 2018

VIA EMAIL PDF

Ms. Sophie Holiday
Health Physicist
Enforcement Specialist (on rotation)
Office of Enforcement, Enforcement Branch
sophie.holiday@nrc.gov

Ms. Andrea Jones
Senior Licensing Officer
Export Controls and Nonproliferation Branch
Office of International Programs, US NRC
andrea.jones2@nrc.gov

Re: US Nuclear Regulatory Commission Information Review
Source Production & Equipment Co., Inc. ("SPEC")

Dear Ms. Holiday and Ms. Jones:

On behalf of SPEC, please find enclosed a set of materials for the NRC's consideration in advance of the Pre-Decisional Conference ("PEC") scheduled for October 18, 2018 at 1:00 p.m.

I. About SPEC

SPEC imports radioactive material in bulk to fabricate individual sealed sources, generally for use in industrial radiography equipment worldwide. SPEC holds a radioactive material ("RAM") license that includes a list of approved radioactive materials that permissibly may be imported and received by SPEC. SPEC's RAM license also indicates allowable radioisotope activity and quantity, and the types of sealed sources, chemical form (*i.e.*, physical state), and authorized usage of those radioisotopes. The common isotopes the

SPEC orders and receives in bulk are Iridium-192, Selenium-75 and occasionally lower amounts of Cobalt-60.

II. Background Facts

On May 30, 2018, SPEC submitted a Voluntary Self-Disclosure ("VSD") following its discovery of facts related to its receipt of liquid Sr-89. A copy of this VSD (without enclosures) is attached hereto as **Exhibit A**.

As stated in the VSD, in a November 20, 2014 letter, Richard McKannay, Jr. of Isoflex USA ("Isoflex") inquired if SPEC would be interested in pursuing an "opportunity" related to Sr-89. Following the receipt of that letter, in December 2014, SPEC's former Vice President Kevin Schehr ("Mr. Schehr"), then SPEC's highest ranking day-to-day executive, asked Regulatory Manager Kelley Richardt ("Ms. Richardt") to add the isotope Sr-89 to SPEC's RAM license. Ms. Richardt then submitted a request to LADEQ on December 4, 2014. On December 18, 2014, SPEC was issued RAM license Rev 65, which allows Sr-89 in "Sealed Sources, Unsealed Pellets, and Special Form" for "Distributions of Approved Sealed Sources." A copy of RAM Rev 65 is attached hereto as **Exhibit B**.

On March 3, 2015, Mr. McKannay, on behalf of Isoflex, asked Mr. Schehr to send "SPEC's current RAM License showing authorization to receive/hold/ship Sr-89." Mr. Schehr asked Ms. Richardt to provide the license to Mr. McKannay, and she did so on March 4, 2015. Copies of the referenced emails are attached as **Exhibit C**.

Ms. Richardt then received no feedback from either Isoflex or Mr. Schehr indicating that RAM Rev 65 was incorrect. Ms. Richardt also was not provided with any information about the intended use of the Sr-89 isotope or any information explaining, for example, that the radioisotope had a liquid form or that liquid Sr-89 would be shipped to or exported by SPEC. Therefore, SPEC is not aware of any documented request or reasoning for Ms. Richardt, as SPEC's Regulatory Manager, to request that Sr-89 in liquid form be added to SPEC's RAM license as of March 2015.[1]

Two months later, on May 16, 2015, Mr. McKannay sent a detailed email to SPEC's Shipping Manager, Nathan Gorbach ("Mr. Gorbach"). This email explained that:

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[1] On April 23, 2015, RAM Rev 66 was issued to SPEC (for purposes unrelated to the alleged violation at issue here). A copy of RAM Rev 66 is attached as **Exhibit D**.

> SPEC and ISOFLEX USA are working jointly on this business opportunity, with IUSA sourcing the product in Russia … with SPECMED as a RAM licensed manufacturer is responsible for receipt, re-packaging and shipment/delivery of the product to China.

Mr. McKannay's email also noted that:

> It is quite important that a USA Certificate of Origin accompany the shipping documents, and that any Russian language labels are completely removed. Kevin has previously indicated that this should not be a problem. FYI, if the manufacturer of the raw radioisotope learns that SPECMED is shipping their product to China, the future availability of this product from Russia will immediately cease. All precautions necessary to avoid this possibility should be taken.

A copy of the email is attached as **Exhibit E**.

On May 26, 2015, Isoflex notified Mr. Schehr that a shipment of 100mCI of Sr-89 had departed Russia and was due to arrive in Louisiana on May 28, 2015. The Sr-89 was to be relabeled as a product of the United States, and then shipped to BDX, a Chinese company. Copies of the referenced emails are attached as **Exhibit F**.

On May 28, 2015, Mr. Gorbach, SPEC's Shipping Manager, who then was unfamiliar with the isotope Sr-89, followed procedure by contacting Ms. Richardt to ask if Sr-89 was an allowable isotope per SPEC's RAM license. Ms. Richardt then verified that SPEC's RAM license listed Sr-89 as an approved isotope (then not knowing that Sr-89 was being shipped in liquid form).

Also on May 28, 2015, SPEC's Technical Director, Steven Johnson ("Mr. Johnson"), submitted the results of a Type A liquid package test to SPEC's Regulatory Manager, for her to use in having the Type A package certified. A copy of the report is attached as **Exhibit G**. Ms. Richardt also learned that the Type A package was intended to transport Sr-89.

Accordingly, later on the afternoon of May 28, 2015, Ms. Richardt asked Mr. Schehr for details about the Sr-89 that would be transported in the Type A container: "What is the form of the Sr-89? Is it a liquid?" Mr. Schehr responded that the materials would be in liquid form. In her capacity as Regulatory Manager, Ms. Richardt then informed Mr. Schehr that

SPEC's "RAM license allows Sr89 in the form of 'sealed sources, unsealed pellets and special form'." Mr. Schehr did not respond to Ms. Richardt on any next steps regarding Sr-89. Copies of the referenced emails are attached as **Exhibit H**.

Then, completely unbeknownst to Ms. Richardt, on June 2, 2015, the liquid isotope Sr-89, of Russian origin, was received by SPEC. Mr. Schehr, in his capacity as Vice President, oversaw SPEC's receipt of the liquid Sr-89, and was involved in opening the package and taking pictures of its contents. At that time, SPEC's staff realized the package contained liquid Sr-89. However, they were not educated or otherwise prepared regarding the handling of this particular isotope, especially in liquid form (and the handling of which required protocols much different from SPEC's normal operating procedures).

Mr. Schehr also did not take any steps to notify Ms. Richardt, as Regulatory Manager, that the liquid isotope Sr-89 was in SPEC's possession, nor did he contact LADEQ to inform it of a possible violation of SPEC's RAM Rev 66. Mr. Schehr also made no notification of the ALARA safety measures for this liquid isotope to SPEC's Radiation Safety Officer ("RSO") or the team involved in handling the isotope.

On her own initiative and still without knowledge of the importation of Sr-89 in liquid form on June 2, 2015, but with the understanding that SPEC may want to use the Type A container to transport liquid Sr-89 at some point in the future, Ms. Richardt decided to add liquid forms generally to SPEC's RAM license. Mr. Schehr never requested this action notwithstanding his conscious and prior receipt of liquid Sr-89 to satisfy a request from Isoflex USA. Rather, Ms. Richardt took this action as part of a lingering "to-do" item in connection with SPEC's efforts to certify a Type A package for future use, in the event that any liquid was ever ordered or received by SPEC.

Thus, on or about June 16, 2015, Ms. Richardt requested that SPEC's RAM license be revised to allow "Possession of Sr-89 and other short lived radioisotopes in liquid or normal form." The new amended license, RAM Rev 67, was received on July 23, 2015 and added "… any short-lived radioisotopes half-life not longer than 120 days" in "Sealed, liquid or normal form. Distribution to authorized users." There was no change to Sr-89 specifically, which still appeared on the license as Sr-89 for "Sealed Sources, Unsealed Pellets, and Special Form" for "Distributions of Approved Sealed Sources." Copies of the referenced emails and RAM Rev 67 are attached as **Exhibit I.**

III. Summary of Corrective Action and Results

Upon discovering the issues outlined above, SPEC modified its purchasing and shipping (import/export) work flow to add RAM license checks as a normal part of the process. Specifically, SPEC has taken the following actions to ensure its compliance with the general license requirements in 10 CFR Part 110:

a) Purchasing radioactive materials is no longer a unilateral process.

b) Multiple leadership positions are involved in the purchasing of any radioactive material, and no material can be purchased without the signature of the current Vice President, Sandra Kusy ("Ms. Kusy").

c) For every purchase, the Regulatory Manager is notified of the type and amount of radioactive material to be ordered.

d) If an unusual isotope (*i.e.*, one that is outside SPEC's normal course of business) is to be purchased, the RSO will conduct proper safety training to achieve ALARA prior to SPEC's receipt of the isotope. This training includes, but is not limited to, factors related to shipping, receiving, importing, exporting, handling, etc.

e) The radioactive materials receiving process has been modified to include a verification of isotope and amount at the time of import/shipping notification. SPEC verifies that the shipment meets the sales order and also complies with SPEC's RAM license.

f) All employees involved in radioactive material purchasing, receiving, and regulatory processes, including all leadership, have been educated about this corrective action. Ongoing training will be conducted as needed.

g) All personnel at SPEC were informed of the need to notify management whenever they encounter something different from the norm and have been encouraged to use the "Stop Work" signal when they feel that a potential violation of SPEC's RAM license or any regulatory concern is present. Special attention has been paid to the relationship between the general import license

requirements in 10 CFR Part 110 and SPEC's RAM license. This education will also be reinforced at SPEC's next quarterly meeting on November 2, 2018.

IV. Conclusions Regarding the Alleged Violation

In SPEC's review of the alleged violation, it concluded that its former Vice President, Mr. Schehr, did not follow the normal procedures for accepting, possessing, importing, or exporting when he accepted a pharmaceutical grade liquid isotope Sr-89, resulting in a violation of SPEC's RAM Rev 66 license. As SPEC's former Vice President, Mr. Schehr did not inform Ms. Richardt, as Regulatory Manager, that SPEC had accepted a shipment of liquid Sr-89 on June 2, 2015, nor did he inform her that the liquid Sr-89 was exported on June 3, 2015. These failures left the violation unknown to Ms. Richardt, as Regulatory Manager, and unknown to SPEC's RSO until SPEC's current Vice President, Ms. Kusy, identified the Sr-89 violation while implementing a corrective action for importing foreign material in late May 2018. SPEC then submitted its VSD immediately thereafter.

While SPEC was disappointed to discover this violation, it is important to note that SPEC does not regularly import or export Sr-89 or any other radioactive materials in liquid form. Therefore, the circumstances pertinent to this alleged violation are limited in scope and will not be repeated.

V. Related Concerns

As disclosed in its May 30, 2018 VSD, SPEC became aware of the present violation while implementing a corrective action related to its labeling of Sr-89 as a product of the United States, rather than as a product of Russian origin (as requested by Isoflex USA to Mr. Schehr). Thus, because the facts regarding the present alleged violation are connected to another series of concerns, we are enclosing several additional self-disclosures, as follows:

a) A November 18, 2016 VSD to the U.S. Census Bureau from Herb Lynch re: labeling of Sr-89 imported from Russia and shipped to China;

b) A March 28, 2017 VSD to the NRC from Herb Lynch re: importation of disused sources; and

c) An April 27, 2017 letter to Peter Habighorst of the NRC with supplemental information regarding importation of disused sources.

Copies of these self-disclosures are attached as **Exhibit J.** We feel compelled to make the NRC aware of these related (but now corrected) issues and would appreciate the opportunity to discuss these concerns when SPEC appears for its PEC on October 18, 2018. In addition to myself and my colleague, Megan Mitchell, SPEC will have the following employees present at the PEC: Ms. Kusy, Ms. Richardt, Mr. Gorbach, and Mr. Johnson. Each of these employees can answer any questions regarding the issues related to this apparent violation or the issues raised in SPEC's voluntary self-disclosures.

Should you need any additional information or wish to discuss these matters further, please do not hesitate to contact us.

Sincerely,

ARNALL GOLDEN GREGORY LLP

Henry M. Perlowski

cc: Richard D. Dicharry
Sandra M. Kusy
Megan P. Mitchell, Esq.

EXHIBIT A

spec
SOURCE OF QUALITY

May 30, 2018

Via Email and FedEx

EMAIL ATTN: Mr. Joseph Noble Joe.Noble@la.gov
Louisiana Dept. of Environmental Quality
Office of Environmental Compliance
Emergency & Radiological Services Division
602 North 5th Street 8th Floor
Baton Rouge, LA 70802

EMAIL ATTN: Mr. Marc Dapas Marc.Dapas@nrc.gov
ATTN: Document Control Desk
Director, Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

RE: Source Production & Equipment Co., Inc. (SPEC)
Voluntary Self-Disclosure
LAC 33: XV.320.A.2 and Radioactive Material License, LA-2966-L01, Amendment 66

Dear Madam or Sir:

On November 18, 2016, Source Production & Equipment Co., Inc. ("SPEC") submitted a Voluntary Self-Disclosure with the United States Census Bureau pursuant to 15 C.F.R. § 30.74 Electronic Export Information relating to the shipments of Sr-89 from Russia to China. This Voluntary Self-Disclosure reported errors in reporting export information on Electronic Export Information ("EEI") filings in AES for export shipments to China in years 2015 and 2016. On January 17, 2017, SPEC submitted additional information to Ms. Kristi Sellers in support of this Voluntary Self-Disclosure. Copies of each of these submissions are attached for your review. We also are copying Special Agent Rory Marquette on this communication, as he has contacted SPEC regarding these Voluntary Self-Disclosures.

As part of the prior Voluntary Self-Disclosures referenced above, SPEC initiated a corrective action to address concerns raised regarding the labeling of shipments to China and the information being reported in EEI filings. During the course of our investigation and corrective action, SPEC discovered an additional concern relating to these shipments to China. Specifically, SPEC learned that its applicable Radioactive Material Licenses ("RAM") – RAM REV 66 as shown

on the chart below -- issued by LADEQ did not authorize the possession of liquid Sr-89, and that the shipments addressed in our prior Voluntary Self-Disclosures, in fact, contained liquid Sr-89.

As further detail, here is a summary of the information that SPEC has discovered, along with supporting documentation for the entries below:

Date	Facts
November 2014	Richard McKannay ("Mr. McKannay"), the Managing Director of ISOFLEX USA, an entity based out of San Francisco, CA sends a letter to Former Vice President of SPEC, Kevin Schehr ("Mr. Schehr") asking to engage SPEC in shipments of Sr-89.
December 2014	Mr. Schehr instructs Kelley Richardt ("Ms. Richardt"), SPEC's Regulatory Manager, to add Sr-89 to SPEC's RAM license.
December 4, 2014	SPEC submits a license modification to LADEQ.
December 18, 2014	The license modification is approved (RAM REV 65). The modification is Sr-89 SEALED SOURCES, UNSEALED PELLETS AND SPECIAL FORM FOR DISTRIBUTION OF APPROVED SEALED SOURCES. The license modification does not cover Sr-89 in liquid form.
March 2015	Isoflex USA requests a copy of SPEC's RAM license with Sr-89 included. Mr. Schehr requests that Ms. Richardt send the license to Mr. McKannay, and Ms. Richardt complies with this request.
April 2015	SPEC begins Type A package testing was done on two identical packages. The report shows that the inner vial was loaded with selenium for one test package and for the second test package the liquid material fluorescein was used. Each test package had absorbent material tightly packed around the vial which was placed inside a #2.5 can. The can was sealed and wrapped with additional absorbent material then placed into a lead pig, the lead pig was placed into an 8-gallon drum.
April 23, 2015	RAM REV 66 is issued to SPEC, but no changes were made with respect to RAM Rev 65's stated Sr-89 (liquid Sr-89 was not added to SPEC's RAM license).
May 2015	Isoflex USA and SPEC engage in correspondence regarding preparation for liquid Sr-89 being shipped from Russia to SPEC. Isoflex USA submits an airway bill and an email stating that a shipment is expected to arrive on May 28, 2015.
May 28, 2015	Ms. Richardt questions Mr. Schehr, in an email, regarding whether the Sr-89 to arrive is in liquid form. Mr. Schehr responds that the Sr-89 is in liquid form, and Ms. Richardt informs him that SPEC does not have a RAM license for Sr-89 in liquid form.
June 2, 2015	A shipment of liquid Sr-89 originating from Russia is opened at SPEC. Mr.

Date	Facts
	Schehr is involved in the acceptance and unpacking of the product and takes photos of the product. Mr. Schehr communicates with Mr. McKannay regarding the shipment, and Mr. Schehr directs compliance with the shipment labeling instructions provided to SPEC by Mr. McKannay (that the shipment from Russia is to be relabeled as showing origin from the United States and then shipped to China).
June 16, 2015	SPEC submits a revision to RAM REV 66 to LADEQ, but no changes were proposed as to liquid Sr-89.
July 23, 2015	RAM REV 67 is approved, but no changes were made as to Sr-89. Rev 67 added "... any short-lived radioisotopes half-life not longer than 120 days. Sealed, liquid or normal form. Distribution to authorized users."

SPEC will continue to review all available documentation to ensure that all of the details relevant to this Voluntary Self-Disclosure are verified to the best of our ability.

The representation made in this Voluntary Self Disclosure are made with the full knowledge and authorization of SPEC's senior management. Please also be advised that SPEC is represented in this matter by Henry Perlowski of Arnall Golden Gregory LLP (404.873.8684 and Henry.Perlowski@agg.com), following our prior representation by Herbert Lynch of Sullivan & Lynch, P.C. Henry is authorized to discuss this matter with LADEQ, NRC, or any Governmental Agency on behalf of SPEC.

Kindly contact either Henry or me if you have any questions regarding this Voluntary Self-Disclosure and/or the original Voluntary Self-Disclosures attached hereto. Again, we are copying Special Agent Marquette given his review of these matters.

And, please be assured of our full cooperation with any review from LADEQ, NRC or Governmental Agency of these matters.

Sincerely,

Sandra M. Kusy,
Vice President and General Manager

spec
SOURCE OF QUALITY

Enclosures: Voluntary Self-Disclosure, November 17, 2016
Voluntary Self-Disclosure, January 17, 2017
Voluntary Self-Disclosure, March 29, 2017
RAM License Documentation
Emails referenced above

cc: VIA FedEx
Chief, Foreign Trade Division
U.S. Census Bureau
4600 Silver Hill Road, Room 6K032
Washington, D.C. 20233-6700
Attn: Ms. Kristi Sellers
Statistician, Trade Regulations Branch

VIA EMAIL
Special Agent Rory P. Marquette
National Security Unit
Homeland Security Investigations
New Orleans, Louisiana
Rory.Marquette@ICE.DHS.GOV

VIA EMAIL
Henry M. Perlowski, Esq.
AGG

EXHIBIT B

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE
RADIATION LICENSING
P.O. BOX 4312
BATON ROUGE, LOUISIANA 70821-4312

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Louisiana Environmental Quality Act (Louisiana Revised Statutes 30:2101 et seq.) and the Louisiana Radiation Regulations, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess and transfer radioactive material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in the Louisiana Revised Statutes 30: 2105 of the Louisiana Nuclear Energy and Radiation Control Law, and is subject to all applicable rules, regulations, and orders of the Department now or hereinafter in effect, including the Louisiana Radiation Regulations (LAC 33:XV) and to any condition specified in the license.

LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Source Production & Equipment Company, Inc. 113 Teal Street St. Rose, Louisiana 70087-9691 Attention: R. D. Donny Dicharry Radiation Safety Officer	LA-2966-L01	August 31, 2016
	PREVIOUS AMENDMENTS ARE VOID AMENDMENT NUMBER 65	AI NUMBER 38844
	THIS LICENSE ISSUED PURSUANT TO AND IN ACCORDANCE WITH Email	
	SIGNED BY: Kelly Richardt	DATE: December 4, 2014

RADIOISOTOPE ELEMENT	RADIOISOTOPE MASS NO.	MAXIMUM NUMBER OF SOURCES	MAXIMUM ACTIVITY OR QUANTITY PER SOURCE*	SEALED SOURCE IDENTIFICATION CHEMICAL FORM—PHYSICAL STATE	STORAGE CONTAINER OR EXPOSURE DEVICE	AUTHORIZED USE
Any	Any	Total	2 Ci	Sealed Sources, Unsealed Pellets and Special Form		Sources only as impurities in the encapsulation
Any (Except SNM)*	Any	Total	500 mCi	Sealed Sources		Calibration Standards and Survey Meter Check Sources
Any (Except SNM)*	Any	Total	6,000 Ci	Sealed Sources**		Radioactive Waste Storage and Transfer for Disposal
Fe	55	Any	40 mCi	AEA Model IEC.A1**	NITON XLi-Series	X-Ray Fluorescence
Cd	109	Any	50 mCi	AEA Models CUC.D1 or CUC.P1 IPL Model XFB-3**		
Am	241	Any	30 mCi	AEA Models AMCL or AMC.P4 IPL Model XFB-4**		
Am	243	Total	1 Ci	Sealed Sources		Distribution
Cm	248	Total	1 Ci	Sealed Sources		Distribution

*pCi-picocurie; µCi-Microcurie; mCi-Millicurie; Ci-Curie

Peggy M. Hatch
Secretary

Peggy M. Hatch

DATE 12/18/14

SPEC _EDLA-0035607

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment Company, Inc.	LA-2966-L01	65	38844	Page 2 of 8 Page(s)

Co	60	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Industrial and Radiographic Sources
Se	75	Total	10,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Sr	89	Total	3 Ci	Sealed Sources, Unsealed Pellets, and Special Form		Distributions of Approved Sealed Sources
Cs	137	1	2,000 Ci	Sealed Source Model, Oak Ridge National Laboratory Model SK 480-C, Type 8 Teletherapy Source**	Best Industries, Inc. Gammaradiator 100	Source Removal
Cs	137	Any	10 Ci	Sealed Sources		Instrument Calibration
Cs	137	Any	54 Ci	Sealed Sources		Distribution of Approved Sealed Sources and Devices for Internal Pipeline Crawlers
Cs	137	Any	2,200 Ci	J.L. Shepherd & Associates Model 6810**		Radioactive Waste Storage and Transfer for Disposal
Yb	169	Total	1,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Yb	175	Total	100 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Ir	192	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Sealed Sources
Ir	192	Total	50,000 Ci	Metallic Pellets, Special Form		Manufacture of Sealed Sources
Ra	226	Any	8 Ci	Sealed Sources		Distribution of Sources and Devices for Internal Pipeline Crawlers

U (Depleted)	Total	15,000 kg	Solid	Shielding Material

* SNM - Special Nuclear Material

**Sealed sources which have been evaluated and approved for licensing purposes and authorized for use in accordance with the Sealed Sources and Devices Registry.

The licensee is authorized to perform the following customer services at temporary job sites, at 113 Teal Street, St. Rose, Louisiana; 70087 (AI No. 38844), or at 119 Teal Street, St. Rose, LA 70087 (AI No.126644):

1. To fabricate, test, distribute, repair, demonstrate and modify approved industrial and radiographic sources, devices and associated equipment.

2. To distribute approved leak test kits and to perform tests for leakage and/or contamination;

3. To package, pick up, store and transfer sealed radioactive material and waste listed in the above schedule for ultimate disposal or reuse;

4. To retrieve industrial and radiographic sources;

5. To calibrate survey instruments, dosimeters, and alarm ratemeters;

6. To distribute EON Corporation Gamma Instrument Calibrator;

7. To distribute Gulf Nuclear, Inc. Model IC-50 Instrument Calibrator;

8. To calibrate survey instruments at temporary jobsites;

9. To temporarily store licensed radioactive materials (excluding SNM) belonging to other licensees.

10. To perform source removal of a teletherapy source from the Gammaradiator 100 device and package it for transportation.

11. To own, acquire, possess, use, or transfer NITON Corporation Model XLi Series including use at temporary jobsites.

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1. The licensee is authorized to fabricate, test, store, distribute, repair and modify industrial and radiographic sources, devices and associated equipment at 113 Teal Street, St. Rose, Louisiana, and 119 Teal Street, St. Rose, Louisiana provided that such sources and devices have been approved by the Department, an Agreement State or the Nuclear Regulatory Commission prior to distribution. Demonstration of such approved sources and devices may also be performed at temporary jobsites of customers.

2. The licensee is authorized to do research and development at:

   113 Teal Street AI No. 38844
   St. Rose, Louisiana 70087

   119 Teal Street AI No. 126644
   St. Rose, Louisiana 70087

3. Radioactive material shall be used by, or under the supervision of, individuals designated by R. D. Donny Dicharry, Radiation Safety Officer, or Rafael A. Bustillo, Assistant Radiation Safety Officer.

4. The Radiation Safety Officer for this license is R.D. Donny Dicharry. The Assistant Radiation Safety Officer for this license is Rafael A. Bustillo.

5. A. The licensee is authorized for packaging and storage of radioactive waste material in sealed form received from customers or resulting from the decontamination of facilities performed by the customer, provided that the maximum amount of radioactive waste possessed by the licensee at any one time does not exceed 6000 curies.

   B. Possession of Special Nuclear Materials is not authorized by this license.

6. The licensee shall maintain records appropriate to Chapter 4 of LAC 33:XV and LAC 33:XV.104.

7. The licensee shall not use radioactive material in or on human beings or in field applications where such activity is released to the environment unless otherwise provided by a specific condition of this license.

8. A. Each sealed source acquired from another person shall be tested for leakage and/or contamination upon receipt.

   B. Each sealed source fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall repair and/or decontaminate and retest the source prior to distribution.

   C. Each sealed source containing radioactive material retained by the licensee for temporary storage shall be tested for leakage and/or contamination upon receipt. The test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the sealed source. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semi-permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

   Sealed sources which are stored, not being used, and identified as in storage for longer than six (6) months need not be retested for leakage and/or contamination. However, sealed sources which are stored for longer than six (6) months shall be tested for leakage and/or contamination prior to transfer or use.

D. If the test required by Section A or C of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with LAC 33:XV. A report shall be filed within five (5) days of the receipt of the test results with the Department, describing the equipment involved, the test results and the corrective action taken.

E. Tests for leakage and/or contamination shall be performed by the licensee or another licensee specifically authorized by the Department, an Agreement State, a licensing state or the Nuclear Regulatory Commission.

F. (1) The licensee is authorized to perform tests for leakage and/or contamination upon sealed sources and upon devices containing sealed sources that contain radioactive material at 113 Teal Street, St. Rose, Louisiana, 119 Teal Street, St. Rose, Louisiana and at customer sites using leak test kits which have been previously evaluated by the Department.

(2) A copy of the leak test results shall be sent to each customer and a copy maintained for inspection by the Department.

9. Depleted uranium shall not be milled, machined or otherwise modified by the licensee.

10. The Department shall require financial assurance in accordance with LAC 33.XV.325 and LAC 33.XV.351, except that all radioactive material rather than specifically by-product material, will be considered in the financial assurance requirements.

11. The licensee shall submit an updated decommissioning funding plan to be reviewed and approved by the Department three (3) years from the date of the most recent financial assurance review, performed February 17, 2011.

12. The licensee is authorized to distribute sources to persons specifically licensed and in accordance with this license and the Sealed Source and Device Registry (SSDR) Number as listed in the table below:

SSDR Number	Device Model Number/Source Model Number	Isotope	Maximum Activity (Ci)	Type of Customer License Required
LA-0612-S-101-S	"B" Series	Ir-192 & Co-60	100	Specific
LA-0612-D-102-S	C-1/ see SSDR for list of sources	Ir-192, Se-75, & Yb-169 Depleted Uranium	300 17 kg shielding	Specific
LA-0612-S-105-S	'G' Series	Co-60 Ir-192, Se-75, & Yb-169	110 240	Specific
LA-0612-S-106-S	"T" Series	Ir-192 Se-75 & Yb-169	140 240	Specific
LA-0612-S-808-S	S-1	Ir-192	120	Specific
LA-0612-S-110-S	SFU	Co-60 Ir-192	110 120	Specific
LA-0612-D-111-S	SPEC 150/ SPEC G-60	Ir-192, Se-75, & Yb-169 Depleted Uranium	150 17 kg shielding	Specific

LA-0612-D-112-S	SPEC-300/ G Series	Co-60	300	Specific
LA-0612-S-113-S	G-70	Co-60	300	Specific
LA-0612-S-114-S	G-80 Series	Co-60	110	Specific
LA-0612-S-802-S	"R" Series	Ir-192 Co-60	100 100	Specific
LA-0612-S-804-S	D-1	Ir-192	100	Specific
LA-0612-S-805-S	N-23	Ir-192	100	Specific
LA-0612-S-806-S	M-19	Ir-192	13	Specific
LA-0612-S-116-S	M-31	Yb-169	.005	Specific
LA-0612-S-117-S	M-15	Ir-192	12	Specific

LA-0612-D-803-S	C-1 (A)	Ir-192	100	Specific
LA-0612-D-807-S	SPEC Co-60 1/ SPEC G-37	Co-60 & Depleted Uranium	100 159 kg shielding	Specific
LA-0612-D-103-S	SPEC 2-T/SPEC G-1 or G-3	Ir-192 & Depleted Uranium	240 16 kg shielding	Specific
LA-0612-D-104-S	SPEC Check Model I/ SPEC G-23	Ir-192 & Depleted Uranium	100 10 kg shielding	Specific
LA-0612-D-108-S	SPEC Check Model II/ SPEC G-36	Ir-192 & Depleted Uranium	150 10 kg shielding	Specific

13. Any cleaning, maintenance or repair of the x-ray fluorescence devices that require removal of the source rod shall be performed by the manufacturer or by other persons specifically licensed by the Department, an Agreement State or the Nuclear Regulatory Commission.

14. The licensee shall maintain a utilization log for each portable x-ray fluorescence device. The utilization log shall include, but not be limited to, the identification of the device, dates of use, location of use, and the name of the authorized individual checking out the source or device.

15. A. Each portable x-ray fluorescence device shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position.

B. The device or its locked container shall have an additional lock to secure it in its storage location to prevent unauthorized removal of the device or container.

C. The locks shall be used when the device is in transport, in storage, or when not under the direct surveillance of an authorized user.

16. The licensee shall adhere to the following with regards to the x-ray fluorescence analyzers:

A. The licensee shall adhere to the requirements of LAC 33:XV.453.

B. The licensee shall ensure that customers have the appropriate licensure for the device.

C. The State of Louisiana requires that these devices be specifically licensed.

D. Devices shall not be rented to unlicensed customers.

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment Company, Inc.	LA-2966-L01	65	38844	Page 7 of 8 Page(s)

E. 1. The distributor shall report to the Department transfers of such devices.

2. For all transfers out of Louisiana the distributor shall report to the U.S. Nuclear Regulatory Commission or to the responsible state agency all transfers of such devices for use under the appropriate regulations.

3. Such reports shall identify each recipient by name and address, an individual by name and/or position who may constitute a point of contact between the agency and the recipient, the type and model of the device transferred, the quantity and type of radioactive material contained in the device, and customer license number.

17. A. Source holders of x-ray fluorescence devices shall be locked in the "off" or closed position when the device is not in use.

B. Sealed sources shall not be opened or removed from their source holders of x-ray fluorescence devices by the licensee.

18. The licensee is authorized only for research and development that does not involve humans.

19. If, in an emergency, it becomes necessary for the licensee to evacuate the facility at which radioactive material is stored, it shall be the responsibility of the licensee to notify the Office of Environmental Compliance (225) 219-3041 prior to leaving. The licensee shall submit a detailed description of how the storage location was secured prior to leaving and the licensee's temporary address, phone number(s) or other means of being contacted. This information shall be kept updated until the licensee is able to return to the licensed storage location.

20. The licensee shall comply with the requirements set forth in 10 CFR 32.201-"Serialization of nationally tracked sources." The licensee shall assign a unique serial number, composed only of alpha-numeric characters, to each nationally tracked source manufactured after February 6, 2007. A nationally tracked source as defined in 10 CFR 32.2, refers to a sealed source containing a quantity equal to or greater than Category 1 or Category 2 levels of any radioactive material listed in Appendix E to 10 CFR Part 20-"Nationally Tracked Source Thresholds."

21. Special Form material shall meet the test requirements of 10 CFR 71.75, encapsulation requirements of 10 CFR 71.4, and transportation requirements of 10 CFR 71.5.

22. The licensee shall comply with the requirements described in Order EA-07-305 (the Order). The licensee shall complete implementation of said requirements within 180 days from the issuance of the license amendment. The licensee shall notify the Department of Environmental Quality when they have achieved full compliance with the requirements described in the Order. The notification shall be made within twenty-five days after full compliance has been achieved. This notification shall include a certification that the Trustworthiness and Reliability (T&R) Official (and any subsequent T&R Official) is themselves deemed trustworthy and reliable by the Licensee as required in paragraph B.2. of the Order. The licensee shall notify the Department of Environmental Quality within 24 hours if the results from a criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

23. A. Except as specifically provided otherwise by the license, the licensee shall possess and use radioactive material described in all schedules of this license in accordance with LAC 33:XV and statements, representations, and procedures contained in the licensee's radioactive material license application (complete submission) dated February 28, 2007, all subsequent licensing correspondence, and all Sealed Source and Device applications, including all of the statements, representations, procedures, and subsequent correspondence submitted in support of, or pertaining to the Sealed Source and Device numbers listed in Condition 11 of this license.

B. The licensee shall comply with the requirements described in the Louisiana Department of Environmental Quality letter dated November 3, 2005 and attached document entitled "Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern." The licensee shall complete implementation of said requirements within 6 months from the issuance of the license amendment or the first day that radionuclides in quantities of concern are possessed at or above the limits specified in Table 1 of the attachment, whichever is later. Within 25 days after the implementation of the requirements of this condition, the licensee shall notify the Department of Environmental Quality in writing that it has completed the requirements of this condition.

PMH:KWB

EXHIBIT C

Sandra Kusy

From: Kevin J Schehr <kevin@spec150.com>
Sent: Wednesday, March 4, 2015 1:25 AM
To: Kelley Richardt; spec@spec150.com
Subject: Fwd: 150303/1650 | ISOFLEX USA \ SPEC's current RAM License showing authorization to receive/hold/ship Sr-89...

Hi Kelley,

Please send Richard the requested information below.

Thank you

Kevin

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: IUSA <iusa@isoflex.com>
Date:03/03/2015 6:51 PM (GMT-06:00)
To: "Kevin J. Schehr" <kevin@spec150.com>
Subject: 150303/1650 | ISOFLEX USA \ SPEC's current RAM License showing authorization to receive/hold/ship Sr-89...

[150303/1650 - San Francisco]

Kevin Schehr, DBA,

VP & General Manager

Source Production & Equipment Co., Inc.

113 Teal Street

St. Rose, LA 70087

REF: SPEC's current RAM License showing authorization to receive/hold/ship Sr-89

KJS-

Can you please send me an updated copy of SPEC's RAM License confirming the authority referenced above.

Need it ASAP, please.

Thanks!

RHM

ISOFLEX USA

P.O. Box 29475

San Francisco • CA 94129 • USA

T +1.415.440.4433

F +1.415.563.4433

M +1.415.217.9696

www.isoflex.com

iusa@isoflex.com

Sandra Kusy

From: Kelley Richardt
Sent: Wednesday, May 16, 2018 11:43 AM
To: Sandra Kusy
Subject: FW: SPEC's RAM License
Attachments: LA2966r65.pdf; Sr89, request to add on 120414.pdf

FYI, the email sent to Richard with RAM license allowing Sr89, Kelley

Kelley Richardt
[illegible]
Source Production & Equipment Co.
p [illegible]
f [illegible]
a [illegible] Teal Street
[illegible]
e kelley@sourceproduction.com

This message (including any attachments) contains confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message. Any disclosure, copying, or distribution of this message, or the taking of any action based on it, is strictly prohibited.

From: Kelley Richardt <kelley@spec150.com>
Sent: Wednesday, March 04, 2015 7:45 AM
To: lusa@isoflex.com
Subject: SPEC's RAM License

Richard,

Kevin asked that I send you the attached RAM license showing our authorization to receive, possess and distribute Sr-89.

Kelley Richardt
Regulatory and Quality Manager

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE
RADIATION LICENSING
P.O. BOX 4312
BATON ROUGE, LOUISIANA 70821-4312

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Louisiana Environmental Quality Act (Louisiana Revised Statutes 30:2101 et seq.) and the Louisiana Radiation Regulations, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess and transfer radioactive material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in the Louisiana Revised Statutes 30: 2105 of the Louisiana Nuclear Energy and Radiation Control Law, and is subject to all applicable rules, regulations, and orders of the Department now or hereinafter in effect, including the Louisiana Radiation Regulations (LAC 33:XV) and to any condition specified in the license.

LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Source Production & Equipment Company, Inc. 113 Teal Street St. Rose, Louisiana 70087-9691 Attention: R. D. Donny Dicharry Radiation Safety Officer	LA-2966-L01	August 31, 2016
	PREVIOUS AMENDMENTS ARE VOID AMENDMENT NUMBER 65	AI NUMBER 38844
	THIS LICENSE ISSUED PURSUANT TO AND IN ACCORDANCE WITH Email	
	SIGNED BY: Kelly Richardt	DATE: December 4, 2014

RADIONUCLIDE		MAXIMUM NUMBER OF SOURCES	MAXIMUM ACTIVITY OR QUANTITY PER SOURCE*	SEALED SOURCE DESIGNATION CHEMICAL FORM—PHYSICAL STATE	STORAGE CONTAINER OR EXPOSURE DEVICE	AUTHORIZED USE
ELEMENT	MASS NO.					
Any	Any	Total	2 Ci	Sealed Sources, Unsealed Pellets and Special Form		Sources only as impurities in the encapsulation
Any (Except SNM)*	Any	Total	500 mCi	Sealed Sources		Calibration Standards and Survey Meter Check Sources
Any (Except SNM)*	Any	Total	6,000 Ci	Sealed Sources**		Radioactive Waste Storage and Transfer for Disposal
Fe	55	Any	40 mCi	AEA Model IEC.A1**	NITON XLi-Series	X-Ray Fluorescence
Cd	109	Any	50 mCi	AEA Models CUC.D1 or CUC.P1 IPL Model XFB-3**		
Am	241	Any	30 mCi	AEA Models AMCL or AMC.P4 IPL Model XFB-4**		
Am	243	Total	1 Ci	Sealed Sources		Distribution
Cm	248	Total	1 Ci	Sealed Sources		Distribution

*pCi-picocurie; µCi-Microcurie; mCi-Millicurie; Ci-Curie

Peggy M. Hatch
Secretary

DATE 12/18/14

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment Company, Inc.	LA-2966-L01	65	38844	Page 2 of 8 Page(s)

Co	60	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Industrial and Radiographic Sources
Se	75	Total	10,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Sr	89	Total	3 Ci	Sealed Sources, Unsealed Pellets, and Special Form		Distributions of Approved Sealed Sources
Cs	137	1	2,000 Ci	Sealed Source Model, Oak Ridge National Laboratory Model SK 480-C, Type 8 Teletherapy Source**	Best Industries, Inc. Gammaradiator 100	Source Removal
Cs	137	Any	10 Ci	Sealed Sources		Instrument Calibration
Cs	137	Any	54 Ci	Sealed Sources		Distribution of Approved Sealed Sources and Devices for Internal Pipeline Crawlers
Cs	137	Any	2,200 Ci	J.L. Shepherd & Associates Model 6810**		Radioactive Waste Storage and Transfer for Disposal
Yb	169	Total	1,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Yb	175	Total	100 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Ir	192	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Sealed Sources
Ir	192	Total	50,000 Ci	Metallic Pellets, Special Form		Manufacture of Sealed Sources
Ra	226	Any	8 Ci	Sealed Sources		Distribution of Sources and Devices for Internal Pipeline Crawlers

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment Company, Inc.	LA-2966-L01	65	38844	Page 3 of 8 Page(s)

U (Depleted)	Total	15,000 kg	Solid	Shielding Material

* SNM - Special Nuclear Material

**Sealed sources which have been evaluated and approved for licensing purposes and authorized for use in accordance with the Sealed Sources and Devices Registry.

The licensee is authorized to perform the following customer services at temporary job sites, at 113 Teal Street, St. Rose, Louisiana; 70087 (AI No. 38844), or at 119 Teal Street, St. Rose, LA 70087 (AI No.126644):

1. To fabricate, test, distribute, repair, demonstrate and modify approved industrial and radiographic sources, devices and associated equipment.

2. To distribute approved leak test kits and to perform tests for leakage and/or contamination;

3. To package, pick up, store and transfer sealed radioactive material and waste listed in the above schedule for ultimate disposal or reuse;

4. To retrieve industrial and radiographic sources;

5. To calibrate survey instruments, dosimeters, and alarm ratemeters;

6. To distribute EON Corporation Gamma Instrument Calibrator;

7. To distribute Gulf Nuclear, Inc. Model IC-50 Instrument Calibrator;

8. To calibrate survey instruments at temporary jobsites;

9. To temporarily store licensed radioactive materials (excluding SNM) belonging to other licensees.

10. To perform source removal of a teletherapy source from the Gammaradiator 100 device and package it for transportation.

11. To own, acquire, possess, use, or transfer NITON Corporation Model XLi Series including use at temporary jobsites.

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1. The licensee is authorized to fabricate, test, store, distribute, repair and modify industrial and radiographic sources, devices and associated equipment at 113 Teal Street, St. Rose, Louisiana, and 119 Teal Street, St. Rose, Louisiana provided that such sources and devices have been approved by the Department, an Agreement State or the Nuclear Regulatory Commission prior to distribution. Demonstration of such approved sources and devices may also be performed at temporary jobsites of customers.

2. The licensee is authorized to do research and development at:

   113 Teal Street AI No. 38844
   St. Rose, Louisiana 70087

   119 Teal Street AI No. 126644
   St. Rose, Louisiana 70087

3. Radioactive material shall be used by, or under the supervision of, individuals designated by R. D. Donny Dicharry, Radiation Safety Officer, or Rafael A. Bustillo, Assistant Radiation Safety Officer.

4. The Radiation Safety Officer for this license is R.D. Donny Dicharry. The Assistant Radiation Safety Officer for this license is Rafael A. Bustillo.

5. A. The licensee is authorized for packaging and storage of radioactive waste material in sealed form received from customers or resulting from the decontamination of facilities performed by the customer, provided that the maximum amount of radioactive waste possessed by the licensee at any one time does not exceed 6000 curies.

   B. Possession of Special Nuclear Materials is not authorized by this license.

6. The licensee shall maintain records appropriate to Chapter 4 of LAC 33:XV and LAC 33:XV.104.

7. The licensee shall not use radioactive material in or on human beings or in field applications where such activity is released to the environment unless otherwise provided by a specific condition of this license.

8. A. Each sealed source acquired from another person shall be tested for leakage and/or contamination upon receipt.

   B. Each sealed source fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall repair and/or decontaminate and retest the source prior to distribution.

   C. Each sealed source containing radioactive material retained by the licensee for temporary storage shall be tested for leakage and/or contamination upon receipt. The test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the sealed source. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semi-permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

   Sealed sources which are stored, not being used, and identified as in storage for longer than six (6) months need not be retested for leakage and/or contamination. However, sealed sources which are stored for longer than six (6) months shall be tested for leakage and/or contamination prior to transfer or use.

D. If the test required by Section A or C of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with LAC 33:XV. A report shall be filed within five (5) days of the receipt of the test results with the Department, describing the equipment involved, the test results and the corrective action taken.

E. Tests for leakage and/or contamination shall be performed by the licensee or another licensee specifically authorized by the Department, an Agreement State, a licensing state or the Nuclear Regulatory Commission.

F. (1) The licensee is authorized to perform tests for leakage and/or contamination upon sealed sources and upon devices containing sealed sources that contain radioactive material at 113 Teal Street, St. Rose, Louisiana, 119 Teal Street, St. Rose, Louisiana and at customer sites using leak test kits which have been previously evaluated by the Department.

(2) A copy of the leak test results shall be sent to each customer and a copy maintained for inspection by the Department.

9. Depleted uranium shall not be milled, machined or otherwise modified by the licensee.

10. The Department shall require financial assurance in accordance with LAC 33.XV.325 and LAC 33.XV.351, except that all radioactive material rather than specifically by-product material, will be considered in the financial assurance requirements.

11. The licensee shall submit an updated decommissioning funding plan to be reviewed and approved by the Department three (3) years from the date of the most recent financial assurance review, performed February 17, 2011.

12. The licensee is authorized to distribute sources to persons specifically licensed and in accordance with this license and the Sealed Source and Device Registry (SSDR) Number as listed in the table below:

SSDR Number	Device Model Number/Source Model Number	Isotope	Maximum Activity (Ci)	Type of Customer License Required
LA-0612-S-101-S	"B" Series	Ir-192 & Co-60	100	Specific
LA-0612-D-102-S	C-1/ see SSDR for list of sources	Ir-192, Se-75, & Yb-169 Depleted Uranium	300 17 kg shielding	Specific
LA-0612-S-105-S	'G' Series	Co-60 Ir-192, Se-75, & Yb-169	110 240	Specific
LA-0612-S-106-S	"T" Series	Ir-192 Se-75 & Yb-169	140 240	Specific
LA-0612-S-808-S	S-1	Ir-192	120	Specific
LA-0612-S-110-S	SFU	Co-60 Ir-192	110 120	Specific
LA-0612-D-111-S	SPEC 150/ SPEC G-60	Ir-192, Se-75, & Yb-169 Depleted Uranium	150 17 kg shielding	Specific

LA-0612-D-112-S	SPEC-300/ G Series	Co-60	300	Specific
LA-0612-S-113-S	G-70	Co-60	300	Specific
LA-0612-S-114-S	G-80 Series	Co-60	110	Specific
LA-0612-S-802-S	"R" Series	Ir-192 Co-60	100 100	Specific
LA-0612-S-804-S	D-1	Ir-192	100	Specific
LA-0612-S-805-S	N-23	Ir-192	100	Specific
LA-0612-S-806-S	M-19	Ir-192	13	Specific
LA-0612-S-116-S	M-31	Yb-169	.005	Specific
LA-0612-S-117-S	M-15	Ir-192	12	Specific

LA-0612-D-803-S	C-1 (A)	Ir-192	100	Specific
LA-0612-D-807-S	SPEC Co-60 I/ SPEC G-37	Co-60 & Depleted Uranium	100 159 kg shielding	Specific
LA-0612-D-103-S	SPEC 2-T/SPEC G-1 or G-3	Ir-192 & Depleted Uranium	240 16 kg shielding	Specific
LA-0612-D-104-S	SPEC Check Model I/ SPEC G-23	Ir-192 & Depleted Uranium	100 10 kg shielding	Specific
LA-0612-D-108-S	SPEC Check Model II/ SPEC G-36	Ir-192 & Depleted Uranium	150 10 kg shielding	Specific

13. Any cleaning, maintenance or repair of the x-ray fluorescence devices that require removal of the source rod shall be performed by the manufacturer or by other persons specifically licensed by the Department, an Agreement State or the Nuclear Regulatory Commission.

14. The licensee shall maintain a utilization log for each portable x-ray fluorescence device. The utilization log shall include, but not be limited to, the identification of the device, dates of use, location of use, and the name of the authorized individual checking out the source or device.

15. A. Each portable x-ray fluorescence device shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position.

B. The device or its locked container shall have an additional lock to secure it in its storage location to prevent unauthorized removal of the device or container.

C. The locks shall be used when the device is in transport, in storage, or when not under the direct surveillance of an authorized user.

16. The licensee shall adhere to the following with regards to the x-ray fluorescence analyzers:

A. The licensee shall adhere to the requirements of LAC 33:XV.453.

B. The licensee shall ensure that customers have the appropriate licensure for the device.

C. The State of Louisiana requires that these devices be specifically licensed.

D. Devices shall not be rented to unlicensed customers.

E. 1. The distributor shall report to the Department transfers of such devices.

2. For all transfers out of Louisiana the distributor shall report to the U.S. Nuclear Regulatory Commission or to the responsible state agency all transfers of such devices for use under the appropriate regulations.

3. Such reports shall identify each recipient by name and address, an individual by name and/or position who may constitute a point of contact between the agency and the recipient, the type and model of the device transferred, the quantity and type of radioactive material contained in the device, and customer license number.

17. A. Source holders of x-ray fluorescence devices shall be locked in the "off" or closed position when the device is not in use.

B. Sealed sources shall not be opened or removed from their source holders of x-ray fluorescence devices by the licensee.

18. The licensee is authorized only for research and development that does not involve humans.

19. If, in an emergency, it becomes necessary for the licensee to evacuate the facility at which radioactive material is stored, it shall be the responsibility of the licensee to notify the Office of Environmental Compliance (225) 219-3041 prior to leaving. The licensee shall submit a detailed description of how the storage location was secured prior to leaving and the licensee's temporary address, phone number(s) or other means of being contacted. This information shall be kept updated until the licensee is able to return to the licensed storage location.

20. The licensee shall comply with the requirements set forth in 10 CFR 32.201-"Serialization of nationally tracked sources." The licensee shall assign a unique serial number, composed only of alpha-numeric characters, to each nationally tracked source manufactured after February 6, 2007. A nationally tracked source as defined in 10 CFR 32.2, refers to a sealed source containing a quantity equal to or greater than Category 1 or Category 2 levels of any radioactive material listed in Appendix E to 10 CFR Part 20-"Nationally Tracked Source Thresholds."

21. Special Form material shall meet the test requirements of 10 CFR 71.75, encapsulation requirements of 10 CFR 71.4, and transportation requirements of 10 CFR 71.5.

22. The licensee shall comply with the requirements described in Order EA-07-305 (the Order). The licensee shall complete implementation of said requirements within 180 days from the issuance of the license amendment. The licensee shall notify the Department of Environmental Quality when they have achieved full compliance with the requirements described in the Order. The notification shall be made within twenty-five days after full compliance has been achieved. This notification shall include a certification that the Trustworthiness and Reliability (T&R) Official (and any subsequent T&R Official) is themselves deemed trustworthy and reliable by the Licensee as required in paragraph B.2. of the Order. The licensee shall notify the Department of Environmental Quality within 24 hours if the results from a criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment Company, Inc.	LA-2966-L01	65	38844	Page 8 of 8 Page(s)

23. A. Except as specifically provided otherwise by the license, the licensee shall possess and use radioactive material described in all schedules of this license in accordance with LAC 33:XV and statements, representations, and procedures contained in the licensee's radioactive material license application (complete submission) dated February 28, 2007, all subsequent licensing correspondence, and all Sealed Source and Device applications, including all of the statements, representations, procedures, and subsequent correspondence submitted in support of, or pertaining to the Sealed Source and Device numbers listed in Condition 11 of this license.

B. The licensee shall comply with the requirements described in the Louisiana Department of Environmental Quality letter dated November 3, 2005 and attached document entitled "Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern." The licensee shall complete implementation of said requirements within 6 months from the issuance of the license amendment or the first day that radionuclides in quantities of concern are possessed at or above the limits specified in Table 1 of the attachment, whichever is later. Within 25 days after the implementation of the requirements of this condition, the licensee shall notify the Department of Environmental Quality in writing that it has completed the requirements of this condition.

PMH:KWB

EXHIBIT D

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE
RADIATION LICENSING
P.O. BOX 4312
BATON ROUGE, LOUISIANA 70821-4312

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Louisiana Environmental Quality Act (Louisiana Revised Statutes 30:2101 et seq.) and the Louisiana Radiation Regulations, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licentee to receive, acquire, own, possess and transfer radioactive material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in the Louisiana Revised Statutes 30: 2105 of the Louisiana Nuclear Energy and Radiation Control Law, and is subject to all applicable rules, regulations, and orders of the Department now or hereinafter in effect, including the Louisiana Radiation Regulations (LAC 33 XV) and to any condition specified in the license

LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Source Production & Equipment Company, Inc. 113 Teal Street St. Rose, Louisiana 70087-9691 Attention: R. D. Donny Dicharry Radiation Safety Officer	LA-2966-L01	August 31, 2016
	PREVIOUS AMENDMENTS ARE VOID AMENDMENT NUMBER 66	AI NUMBER 38844
	THIS LICENSE ISSUED PURSUANT TO AND IN ACCORDANCE WITH Emails	
	SIGNED BY Kelly Richardt	DATE March 24, 2015 & April 2, 2015

RADIOISOTOPE ELEMENT	RADIOISOTOPE MASS NO	MAXIMUM NUMBER OF SOURCES	MAXIMUM ACTIVITY OR QUANTITY PER SOURCE*	SEALED SOURCE IDENTIFICATION CHEMICAL FORM—PHYSICAL STATE	STORAGE CONTAINER OR EXPOSURE DEVICE	AUTHORIZED USE
Any	Any	Total	2 Ci	Sealed Sources, Unsealed Pellets and Special Form		Sources only as impurities in the encapsulation
Any (Except SNM)*	Any	Total	500 mCi	Sealed Sources		Calibration Standards and Survey Meter Check Sources
Any (Except SNM)*	Any	Total	6,000 Ci	Sealed Sources**		Radioactive Waste Storage and Transfer for Disposal
Fe	55	Any	40 mCi	AEA Model IEC.A1**	NITON XLi-Series	X-Ray Fluorescence
Cd	109	Any	50 mCi	AEA Models CUC.D1 or CUC.P1 IPL Model XFB-3**		
Am	241	Any	30 mCi	AEA Models AMCL or AMC.P4 IPL Model XFB-4**		
/	243	Total	1 Ci	Sealed Sources		Distribution
Cm	248	Total	1 Ci	Sealed Sources		Distribution

*pCi-picocurie, uCi-Microcurie, mCi-Millicurie, Ci-Curie

D. Chance McNeely
Assistant Secretary

DATE 4/23/15

Co	60	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Industrial and Radiographic Sources
Se	75	Total	20,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Sr	89	Total	3 Ci	Sealed Sources, Unsealed Pellets, and Special Form		Distributions of Approved Sealed Sources
Cs	137	1	2,000 Ci	Sealed Source Model, Oak Ridge National Laboratory Model SK 480-C, Type 8 Teletherapy Source**	Best Industries, Inc. Gammaradiator 100	Source Removal
C	137	Any	10 Ci	Sealed Sources		Instrument Calibration
Cs	137	Any	54 Ci	Sealed Sources		Distribution of Approved Sealed Sources and Devices for Internal Pipeline Crawlers
Cs	137	Any	2,200 Ci	J.L. Shepherd & Associates Model 6810**		Radioactive Waste Storage and Transfer for Disposal
Yb	169	Total	1,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Yb	175	Total	100 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Ir	192	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Sealed Sources
Ir	192	Total	80,000 Ci	Metallic Pellets, Special Form		Manufacture of Sealed Sources
Ra	226	Any	8 Ci	Sealed Sources		Distribution of Sources and Devices for Internal Pipeline Crawlers

U (Depleted)	Total	15,000 kg	Solid	Shielding Material

* SNM - Special Nuclear Material

**Sealed sources which have been evaluated and approved for licensing purposes and authorized for use in accordance with the Sealed Sources and Devices Registry.

The licensee is authorized to perform the following customer services at temporary job sites, at 113 Teal Street, St. Rose, Louisiana; 70087 (AI No. 38844), or at 119 Teal Street, St. Rose, LA 70087 (AI No.126644):

1. To fabricate, test, distribute, repair, demonstrate and modify approved industrial and radiographic sources, devices and associated equipment.

2. To distribute approved leak test kits and to perform tests for leakage and/or contamination;

3. To package, pick up, store and transfer sealed radioactive material and waste listed in the above schedule for ultimate disposal or reuse;

4. To retrieve industrial and radiographic sources;

5. To calibrate survey instruments, dosimeters, and alarm ratemeters;

6. To distribute EON Corporation Gamma Instrument Calibrator;

7. To distribute Gulf Nuclear, Inc. Model IC-50 Instrument Calibrator;

8. To calibrate survey instruments at temporary jobsites;

9. To temporarily store licensed radioactive materials (excluding SNM) belonging to other licensees.

10. To perform source removal of a teletherapy source from the Gammaradiator 100 device and package it for transportation.

11. To own, acquire, possess, use, or transfer NITON Corporation Model XLi Series including use at temporary jobsites.

---

1. The licensee is authorized to fabricate, test, store, distribute, repair and modify industrial and radiographic sources, devices and associated equipment at 113 Teal Street, St. Rose, Louisiana, and 119 Teal Street, St. Rose, Louisiana provided that such sources and devices have been approved by the Department, an Agreement State or the Nuclear Regulatory Commission prior to distribution. Demonstration of such approved sources and devices may also be performed at temporary jobsites of customers.

2. The licensee is authorized to do research and development at:

113 Teal Street AI No. 38844
St. Rose, Louisiana 70087

119 Teal Street AI No. 126644
St. Rose, Louisiana 70087

3. Radioactive material shall be used by, or under the supervision of, individuals designated by R. D. Donny Dicharry, Radiation Safety Officer, Rafael A. Bustillo, Assistant Radiation Safety Officer or Donny Faucheux, Assistant Radiation Safety Officer.

4. The Radiation Safety Officer for this license is R.D. Donny Dicharry. The Assistant Radiation Safety Officers for this license are Rafael A. Bustillo or Donny Faucheux.

5. A. The licensee is authorized for packaging and storage of radioactive waste material in sealed form received from customers or resulting from the decontamination of facilities performed by the customer, provided that the maximum amount of radioactive waste possessed by the licensee at any one time does not exceed 6000 curies.

B. Possession of Special Nuclear Materials is not authorized by this license.

6. The licensee shall maintain records appropriate to Chapter 4 of LAC 33:XV and LAC 33:XV.104.

7. The licensee shall not use radioactive material in or on human beings or in field applications where such activity is released to the environment unless otherwise provided by a specific condition of this license.

8. A. Each sealed source acquired from another person shall be tested for leakage and/or contamination upon receipt.

B. Each sealed source fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall repair and/or decontaminate and retest the source prior to distribution.

C. Each sealed source containing radioactive material retained by the licensee for temporary storage shall be tested for leakage and/or contamination upon receipt. The test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the sealed source. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semi-permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

Sealed sources which are stored, not being used, and identified as in storage for longer than six (6) months need not be retested for leakage and/or contamination. However, sealed sources which are stored for longer than six (6) months shall be tested for leakage and/or contamination prior to transfer or use.

D. If the test required by Section A or C of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with LAC 33:XV. A report shall be filed within five (5) days of the receipt of the test results with the Department, describing the equipment involved, the test results and the corrective action taken.

E. Tests for leakage and/or contamination shall be performed by the licensee or another licensee specifically authorized by the Department, an Agreement State, a licensing state or the Nuclear Regulatory Commission.

F. (1) The licensee is authorized to perform tests for leakage and/or contamination upon sealed sources and upon devices containing sealed sources that contain radioactive material at 113 Teal Street, St. Rose, Louisiana, 119 Teal Street, St. Rose, Louisiana and at customer sites using leak test kits which have been previously evaluated by the Department.

(2) A copy of the leak test results shall be sent to each customer and a copy maintained for inspection by the Department.

9. Depleted uranium shall not be milled, machined or otherwise modified by the licensee.

1 The Department shall require financial assurance in accordance with LAC 33.XV.325 and LAC 33.XV.351, except that all radioactive material rather than specifically by-product material, will be considered in the financial assurance requirements.

11. The licensee shall submit an updated decommissioning funding plan to be reviewed and approved by the Department three (3) years from the date of the most recent financial assurance review, performed July 29, 2014.

12. The licensee is authorized to distribute sources to persons specifically licensed and in accordance with this license and the Sealed Source and Device Registry (SSDR) Number as listed in the table below:

SSDR Number	Device Model Number/Source Model Number	Isotope	Maximum Activity (Ci)	Type of Customer License Required
LA-0612-S-101-S	"B" Series	Ir-192 & Co-60	100	Specific
LA-0612-D-102-S	C-1/ see SSDR for list of sources	Ir-192, Se-75, & Yb-169 Depleted Uranium	300 17 kg shielding	Specific
LA-0612-S-105-S	'G' Series	Co-60 Ir-192, Se-75, & Yb-169	110 240	Specific
LA-0612-S-106-S	"T" Series	Ir-192 Se-75 & Yb-169	140 240	Specific
LA-0612-S-808-S	S-1	Ir-192	120	Specific
LA-0612-S-110-S	SFU	Co-60 Ir-192	110 120	Specific
LA-0612-D-111-S	SPEC 150/ SPEC G-60	Ir-192, Se-75, & Yb-169 Depleted Uranium	150 17 kg shielding	Specific

LA-0612-D-112-S	SPEC-300/ G Series	Co-60	300	Specific
LA-0612-S-113-S	G-70	Co-60	300	Specific
LA-0612-S-114-S	G-80 Series	Co-60	110	Specific
LA-0612-S-802-S	"R" Series	Ir-192 Co-60	100 100	Specific
LA-0612-S-804-S	D-1	Ir-192	100	Specific
LA-0612-S-805-S	N-23	Ir-192	100	Specific
LA-0612-S-806-S	M-19	Ir-192	13	Specific
LA-0612-S-116-S	M-31	Yb-169	.005	Specific
LA-0612-S-117-S	M-15	Ir-192	12	Specific

LA-0612-D-803-S	C-1 (A)	Ir-192	100	Specific
LA-0612-D-807-S	SPEC Co-60 1/ SPEC G-37	Co-60 & Depleted Uranium	100 159 kg shielding	Specific
LA-0612-D-103-S	SPEC 2-T/SPEC G-1 or G-3	Ir-192 & Depleted Uranium	240 16 kg shielding	Specific
LA-0612-D-104-S	SPEC Check Model I/ SPEC G-23	Ir-192 & Depleted Uranium	100 10 kg shielding	Specific
LA-0612-D-108-S	SPEC Check Model II/ SPEC G-36	Ir-192 & Depleted Uranium	150 10 kg shielding	Specific

13. Any cleaning, maintenance or repair of the x-ray fluorescence devices that require removal of the source rod shall be performed by the manufacturer or by other persons specifically licensed by the Department, an Agreement State or the Nuclear Regulatory Commission.

14. The licensee shall maintain a utilization log for each portable x-ray fluorescence device. The utilization log shall include, but not be limited to, the identification of the device, dates of use, location of use, and the name of the authorized individual checking out the source or device.

15. A. Each portable x-ray fluorescence device shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position.

B. The device or its locked container shall have an additional lock to secure it in its storage location to prevent unauthorized removal of the device or container.

C. The locks shall be used when the device is in transport, in storage, or when not under the direct surveillance of an authorized user.

16. The licensee shall adhere to the following with regards to the x-ray fluorescence analyzers:

A. The licensee shall adhere to the requirements of LAC 33:XV.453.

B. The licensee shall ensure that customers have the appropriate licensure for the device.

C. The State of Louisiana requires that these devices be specifically licensed.

D. Devices shall not be rented to unlicensed customers.

E. 1. The distributor shall report to the Department transfers of such devices.

2. For all transfers out of Louisiana the distributor shall report to the U.S. Nuclear Regulatory Commission or to the responsible state agency all transfers of such devices for use under the appropriate regulations.

3. Such reports shall identify each recipient by name and address, an individual by name and/or position who may constitute a point of contact between the agency and the recipient, the type and model of the device transferred, the quantity and type of radioactive material contained in the device, and customer license number.

17. A. Source holders of x-ray fluorescence devices shall be locked in the "off" or closed position when the device is not in use.

B. Sealed sources shall not be opened or removed from their source holders of x-ray fluorescence devices by the licensee.

18. The licensee is authorized only for research and development that does not involve humans.

19. If, in an emergency, it becomes necessary for the licensee to evacuate the facility at which radioactive material is stored, it shall be the responsibility of the licensee to notify the Office of Environmental Compliance (225) 219-3041 prior to leaving. The licensee shall submit a detailed description of how the storage location was secured prior to leaving and the licensee's temporary address, phone number(s) or other means of being contacted. This information shall be kept updated until the licensee is able to return to the licensed storage location.

20. The licensee shall comply with the requirements set forth in 10 CFR 32.201-"Serialization of nationally tracked sources." The licensee shall assign a unique serial number, composed only of alpha-numeric characters, to each nationally tracked source manufactured after February 6, 2007. A nationally tracked source as defined in 10 CFR 32.2, refers to a sealed source containing a quantity equal to or greater than Category 1 or Category 2 levels of any radioactive material listed in Appendix E to 10 CFR Part 20-"Nationally Tracked Source Thresholds."

21. Special Form material shall meet the test requirements of 10 CFR 71.75, encapsulation requirements of 10 CFR 71.4, and transportation requirements of 10 CFR 71.5.

22. The licensee shall comply with the requirements described in Order EA-07-305 (the Order). The licensee shall complete implementation of said requirements within 180 days from the issuance of the license amendment. The licensee shall notify the Department of Environmental Quality when they have achieved full compliance with the requirements described in the Order. The notification shall be made within twenty-five days after full compliance has been achieved. This notification shall include a certification that the Trustworthiness and Reliability (T&R) Official (and any subsequent T&R Official) is themselves deemed trustworthy and reliable by the Licensee as required in paragraph B.2. of the Order. The licensee shall notify the Department of Environmental Quality within 24 hours if the results from a criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	AI NUMBER	
Source Production & Equipment C ıpany, Inc.	LA-2966-L01	66	38844	Page 8 of 8 Page(s)

23. A. Except as specifically provided otherwise by the license, the licensee shall possess and use radioactive material described in all schedules of this license in accordance with LAC 33:XV and statements, representations, and procedures contained in the licensee's radioactive material license application (complete submission) dated February 28, 2007, all subsequent licensing correspondence, and all Sealed Source and Device applications, including all of the statements, representations, procedures, and subsequent correspondence submitted in support of, or pertaining to the Sealed Source and Device numbers listed in Condition 11 of this license.

B. The licensee shall comply with the requirements described in the Louisiana Department of Environmental Quality letter dated November 3, 2005 and attached document entitled "Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern." The licensee shall complete implementation of said requirements within 6 months from the issuance of the license amendment or the first day that radionuclides in quantities of concern are possessed at or above the limits specified in Table 1 of the attachment, whichever is later. Within 25 days after the implementation of the requirements of this condition, the licensee shall notify the Department of Environmental Quality in writing that it has completed the requirements of this condition.

DCM:KWB

EXHIBIT E

Shipping Manager

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

From: IUSA [mailto:iusa@isoflex.com]
Sent: Saturday, May 16, 2015 3:53 PM
To: Nathan Gorbach
Cc: Kevin J. Schehr; John J. Munro III, Ph.D.; Tony Bustillo; Jim V. Waugh; Vasily N. Kornoukhov
Subject: 150515/1800 | ISOFLEX USA \ Upcoming receipt and re-shipment of medical radioisotope, Sr-89 to China...

150515/1800 - San Francisco]

Nathan Gorbach, Shipping Manager
Source Production & Equipment Co., Inc.
113 Teal Street
St. Rose, LA 70087

REF: Upcoming receipt and re-shipment of medical radioisotope, Sr-89 to China...

Nathan-

If my memory serves me, we have met briefly on one occasion during one of my visits to SPEC about a year ago.

I would like to better introduce myself and focus on a very important initial shipment of medical radioisotope Sr-89 by SPECMED to a new and potentially important business opportunity for SPECMED/ISOFLEX in China. SPEC and ISOFLEX USA are working jointly on this business opportunity, with IUSA sourcing the product in Russia, securing as well as managing relations with the Buyer. SPECMED as a RAM licensed manufacturer is responsible for receipt, re-packing and shipment/delivery of the product to China.

Following a conversation with Kevin, I said that I was going to write you directly and establish clearer communications, in the hope that you will communicate directly with me regarding any aspect of this shipment. Toward that end:

1. It is critical that this shipment is completed without any unnecessary complications. Although it is only a sample shipment consisting of 100 mCi, the shipping/delivery procedure we are setting-up is intended to be a monthly event, gradually increasing to 1000 mCi/month) if the product is approved by the end-user. ISOFLEX USA's customer is Beijing Deyan Xinge Co., Ltd. (BDX), a fully licensed RAM distributor based in Beijing, with offices in Shanghai and Guangdong. The end user of the product is their customer, Jaco Pharmaceuticals, (aka Junan Pharmaceutical Co., Ltd.) with whom we have no business relationship.

2. The goods are expected to be shipped from Samara between May 20th and the end of the month. IUSA will be monitoring the shipment from Russia and either myself, Vasily Kornoukhov (IUSA's Moscow employee) or Jim Waugh will be advising you of all arrival details. It is intended that shipment from Paris will be coordinated through AJ International Freight Forwarders.

3. Please find attached, a full set of documents relative to the shipment. This information has previously been sent to Kevin, and you may have already seen them. In any case, I ask that you kindly review the documentation carefully. A good deal of effort was put into their preparation to avoid mistakes.

4. Unless you are advised otherwise by Kevin, we specifically request that the *Seller* on all documentation be shown as SpecMed Division of Source Production & Equipment Co., Inc. as indicated in the attached document set.

5. It is quite important that a USA Certificate of Origin accompany the shipping documents, and that any Russian language labels are completely removed. Kevin as previously indicated that this should not be a problem. FYI, if the manufacturer of the raw radioisotope learns that SPECMED is shipping their product to China, the future availability of this product from Russia will immediately cease. All precautions necessary to avoid this possibility should be taken.

6. Kevin has provided me with your mobile number (504-920-4126). My mobile number is 415-217-9696. If either of us need to contact the other please first send an SMS (text) and ask the other to call back ASAP. Also, Jim Waugh's mobile number is 417-621-1222.

7. Invoicing and collection for the product will be handled by IUSA, and IUSA will then remit directly to SPECMED in accordance with agreement reached between Kevin and myself.

Please get back to me with any questions you may have.

Best regards,

Richard

Richard H. McKannay Jr
Managing Director

ISOFLEX USA
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San Francisco • CA 94129 • USA
T +1.415.440.4433
F +1.415.863.4433
M +1.415.217.9696
www.isoflex.com
iusa@isoflex.com

EXHIBIT F

Sandra Kusy

From: Kevin J Schehr <kevin@spec150.com>
Sent: Tuesday, May 26, 2015 1:33 PM
To: Nathan Gorbach; spec@spec150.com
Subject: Fwd: Shipment of Sr-89 to SPECmed IUSA:0005569
Attachments: Cargo Tracking.PNG; R4690 CDG-MSY_AWB_by UNILOAD.pdf

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: Patrick Hardy <PEH@isoflex.com>
Date: 05/26/2015 10:58 AM (GMT-06:00)
To: Kevin Schehr <kevin@spec150.com>, Richard McKannay <RHM@isoflex.com>
Cc: "John J. Munro III, Ph.D." <johnm@spec150.com>
Subject: Shipment of Sr-89 to SPECmed IUSA:0005569

[150526/0859 - San Francisco]

REF: Shipment of Sr-89 to SPEC

Dear Kevin -

On the chance Richard has not already been in contact with you, I wanted to alert you that the shipment of 100mCi of Sr-89 has departed Russia is due to arrive at MSY on the 28th.

I have attached the AWB for you records and a screenshot of United Airlines tracking page. Richard has sent you a complete of all information and licence information at the end of April. However, please let me know should you need another copy.

Best Regards,

Patrick

ISOFLEX USA

P.O. Box 29475

San Francisco • CA 94129 • USA

T .+1.415.440.4433

F +1.415.563.4433

www.isoflex.com

peh@isoflex.com

From: IUSA
Sent: Thursday, May 14, 2015 1:54 PM
To: Kevin J. Schehr
Cc: John J. Munro III, Ph.D.
Subject: 150514/1355 | ISOFLEX USA \ 1)Congratulations!!; 2)Attached copy of BDX's import license for Sr-89; 3)Update re shipment from Russia...

[150514/1355 - San Francisco]

Kevin Schehr, VP & General Manager

Source Production & Equipment Co., Inc.

113 Teal Street

St. Rose, LA 70087

REF: 1)Congratulations!!

2)Attached copy of BDX's import license for Sr-89

3)Update re shipment from Russia..

KJS-

Our sincerest congratulations regarding DOT's Revalidation of SPEC's Canadian Certficate CND2091B(U)-96 covering the Aspect 12K. To be sure, Canadian approval, plus DOT approval and Russian approval (pending) of SPEC's proprietary Aspect 12K container constitute a milestone in SPEC's business history. I view such approvals as giving witness to the tenacity of SPEC's management and no doubt they will go a long way toward insuring the Company's survival in the future. Of course, copies have been sent to Russia.

We do not have any further confirmation from Russia as yet, but are hoping that approval will come of course in by early June. As soon as we know, we will advise you, But in the meantime, we suggest that sufficient containers be ready for shipment to MAYAK for the June delivery.

On other business, we Have not communicated in a bit, so I want to bring you up-to-date on a couple of items relating to Sr-89:

1. At this very moment, we have no further information regarding the pending shipment of the test sample of Sr-89 from RIAR to SPEC. We know only that the shipment is supposed to be made from Samara sometime after to 20th of May. We weill keep you advise as soon as we hear further. We are also keeping BDX fully apprised.

2. Attached, please find BDX's license to import Sr-89. The translation was done in our office by Joey.

3. You received a full information packet from me on April 29 regarding shipment of the goods to BDX (destination airport, Shanghai), copy attached for easy reference. If there is anything I have overlooked, please advise.

Again, my sincerest contratulations re the Aspect 12K!

RHM

Richard H. McKannay Jr

Managing Director

ISOFLEX USA

P.O. Box 29475

San Francisco • CA 94129 • USA

T +1.415.440.4433

F +1.[illegible]

M +1.415.217.9696

[illegible]

cc: John J. Munro III, Ph.D., CSO

724 DME 4428 8333 724-4428 8333

Air Waybill

SWISS WorldCargo

JSC SSC RESEARCH INSTITUTE OF ATOMIC REACTORS
DIMITROVGRAD-10, ULYANOVSK REG 433510 RUSSIA
PH +7 84235 65505

e-mail: toporov@niiar.ru

Source Production and Equipment Co., Inc (SPEG)
113 Teal Street St Rose, LA 70087, USA
Contact Information: VP & General Manager
Tel.: +1 504 464 9471
Fax: +1 504 467 7685

LLC UNILOAD DOMODEDOVO

DOMODEDOVO INTL AIRPORT R4690

ZRH	LX	CDG	LX	USD	P	X	X	NVD	NCV
PARIS		LX1325/26	LX644/26	XXX					

DANGEROUS GOODS AS PER ATTACHED SHIPPER'S DECLARATION

Reshipment in CDG provided by A.J International Att: Mr Cedric Curot: +33 1.48.16.18.50
Fax: 33. 1.48.16.18.59. AWB and attached docs in CDG should be handed to A J.International
EMERGENCY 24-HOUR TEL.:+7 903 337 35 75 ELENA S KALEVICH

1	3,1	K M	6,5	62,00	62,00	UN 2915 RADIOACTIVE MATERIAL TYPE A PACKAGES 32x32x36 cm FOR MEDICAL AND SCIENTIFIC PURPOSES ONLY

104/4010/150515/0000376

1	3,1			62,00	

Prepaid Collect

62 00

SCC	10,78	AWA	30,00
MYC	7,80	RAA	150,00
RAC	30,00		
RDC	100,00		

180,00

138,58

380,58

Shipper's Declaration: Dangerous goods as per part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations.

JSC DOMODEDOVO AIRPORT
AVIATION SECURITY
SECURITY CHECKED

Currency Conversion Rates | CC Charges in Dest. Currency | 25 MAY 2015 | DME | LLC "UNILOAD"

For Carriage Use Only | Charges at Destination | Total Collect Charges

724-4428 8333

Date Time 25.05.15 11:42

EXHIBIT G

Project: SPEC Type-A Liquid Package
Subject: Product Testing
By: Steven Johnson
Date: May 28th, 2015

I. Introduction

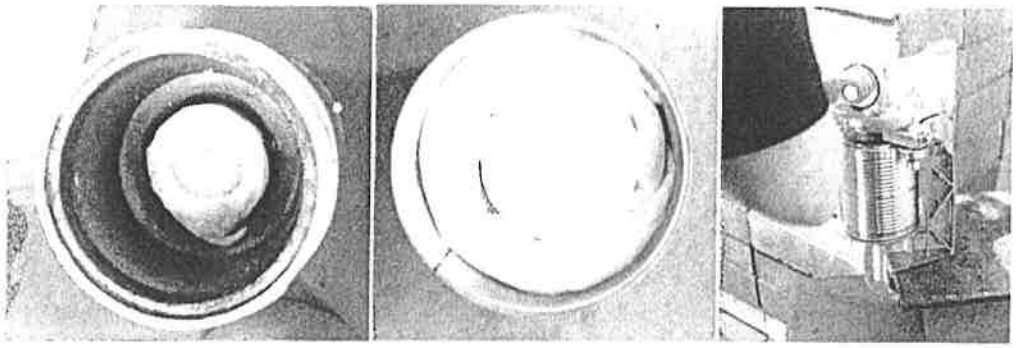
The purpose of this report is to demonstrate Source Production & Equipment Co.'s Type-A Liquid Package conforms to all testing requirements of 10 CFR Part 71, Packaging and Transportation of Radioactive Material; TS-R-1, Regulations for the Safe Transport of Radioactive Material; TS-G-1.1, Advisory Material for the IAEA Regulations for the transport of Radioactive Material; IATA's Dangerous Goods Regulations. When the regulations differed, the more stringent procedure was adhered to.

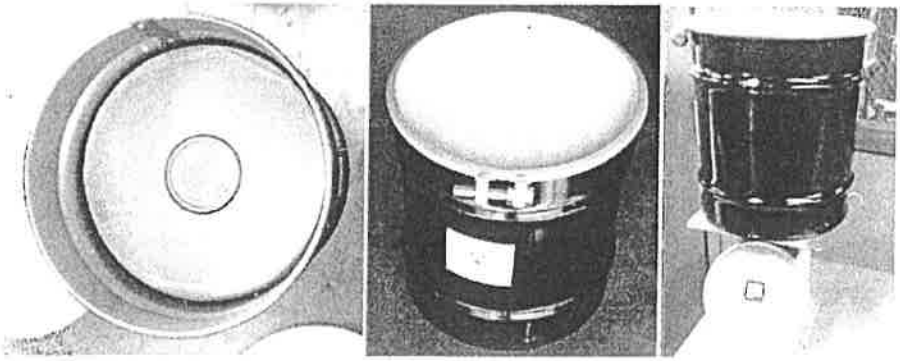
II. Testing

1. Package & Loading

Testing was conducted simultaneously on two identical packages. Package one contained 100 Curies of Selenium-75; Package Two contained approximately 4mL of Fluorescein solution. The radioactive package was used to certify that radiation levels did not increase after testing; and the fluorescent package was used to certify that the package did not leak during testing.

Both packages were loaded in the same manner as depicted below. The inner vial, loaded with either selenium or fluorescein, was wrapped with absorbent material and placed inside the lead pig. The lead pig and additional absorbent material was then tightly packed inside a #2.5 can. The can was then sealed and placed within the modified 8 gallon drum. The bolt ring was then applied. The full weight of both packages was approximately 31 pounds.





The radioactive package was sent to Q.A. for an initial radiation survey. The package exterior was divided into six sections; top, bottom, and four quadrants on the cylindrical face. For each section, the location with the highest radiation reading was marked, and the value recorded. The results can be found below.

Actual Pre-Test Radiation Readings				
Surface Location	Surface Reading		One Meter Reading	
	mSv/h	mrem/h	mSv/h	mrem/h
Top	1.25	125	0.0391	3.91
Bottom	1.17	117	0.0306	3.06
12 - 3	1.07	107	0.0247	2.47
3 - 6	1.13	113	0.0286	2.86
6 - 9	1.46	146	0.0279	2.79
9 - 12	1.74	174	0.0336	3.36

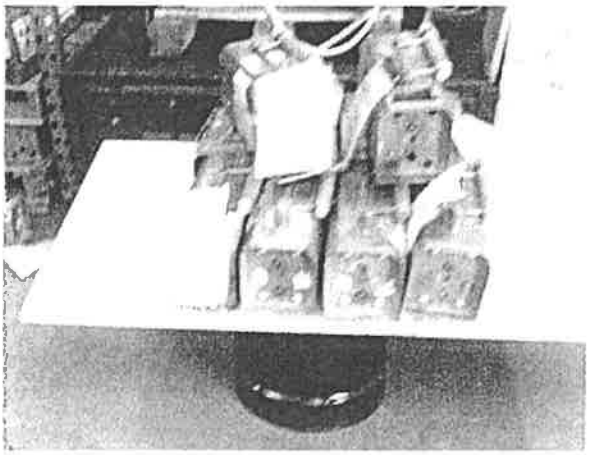
The testing was conducted on Wednesday, April 29th. The weather was 60°F with a humidity of 81%, a barometer of 30", and wind from the North at 11 mph. The testing was conducted by Steven Johnson with the assistance of Donald Foucher and Michael Mathis. Andres Contreras conducted the radiation surveys and witnessed the test procedures.

2. Stacking Test

The objective of this test is to demonstrate the Type-A Liquid Packages ability to withstand a compressive load the equivalent of five times the weight of the package or the equivalent of 13 kilopascals (1.9 pounds per square inch) multiplied by the vertically projected area of the package for a period of 24 hours. The maximum allowable weight of the package is 32 pounds; five times the weight of the package is 160 pounds.

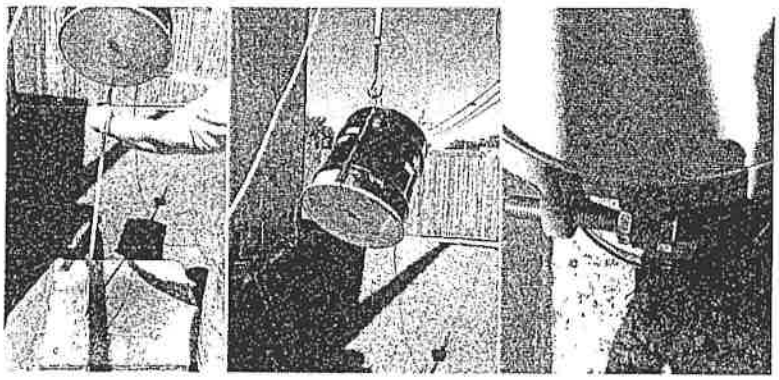
The diameter of the drum is 14.3", creating a vertically projected area of 160.6 square inches. This vertically projected area multiplied by 1.9 pounds per square inches is equal to 305.2 pounds.

The stacking weight totaled 536 pounds; 10 SPEC-150's each weighing 52 pounds and the plywood board weighing 16 pounds. After 24 hours the weights were removed and the package was inspected. No damage was found. It is concluded the SPEC Type-A Liquid Package successfully passed the stacking test.



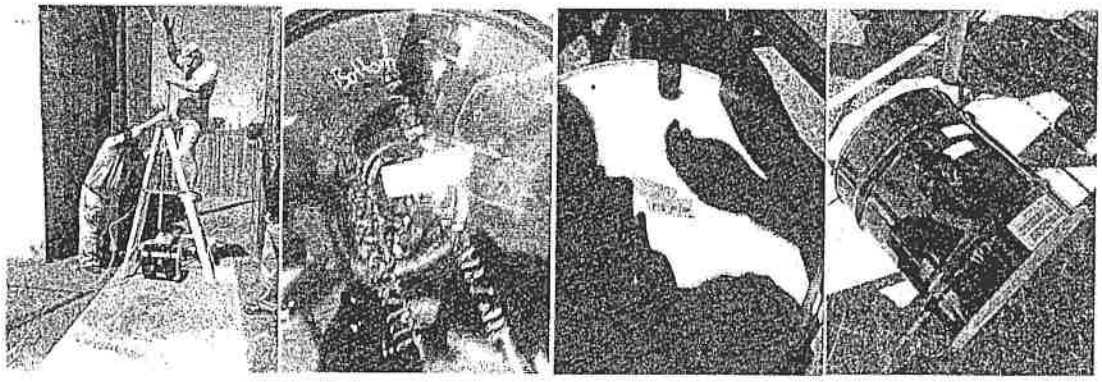
3. Normal conditions Free Drop Test

For the Normal Conditions Free Drop Test the package was hoisted to a height of 49" above the target, and dropped. The point of impact was the package's bolt ring closure on the top edge of the drum. To achieve the desired impact orientation the package was suspended by one point of contact directly opposite the impact point such that the attachment point, center of gravity and impact point were all vertically aligned. The target was constructed by wet floating a solid steel plate, measuring 30.25" x 35.25" x 1.8" and weighing 528 pounds, onto the top surface of a flat horizontal concrete block, weighing approximately 9,900 pounds. The concrete block is steel reinforced and rests in firm soil. Following the drop test, the package was carefully visually inspected. The package received only superficial damage and was fully functional.



4. Normal Conditions Penetration Test

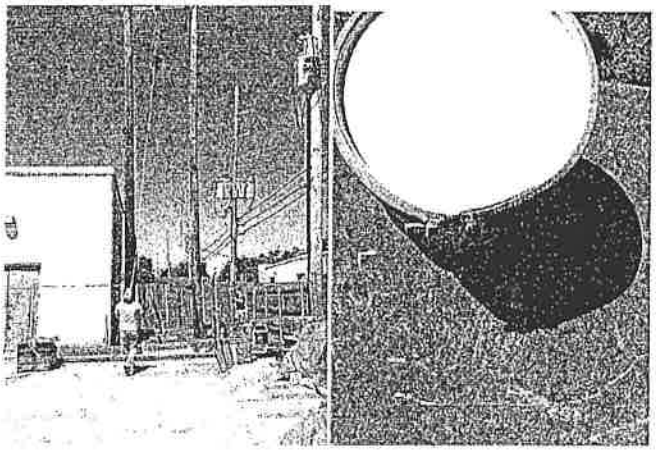
The same test package used for the free drop test was used as the penetration test package. A calibrated 31.8mm (1 ¼") diameter steel cylinder with 1 hemispherical end weighing 6kg (13 lbs) was dropped vertically from a height of over 1m (40") on several points which were determined to be the most vulnerable to penetration. These positions were the center of top and bottom and cylindrical face. From all three drops the drum suffered minimal damage, a semi hemispherical depression approximately 1" in diameter and ¼" deep. Photographs of the setup and damage are included below.



5. Normal Conditions 30' Free Drop Test

For the 30' Free Drop Test, the package was twice hoisted to a height of 30 feet and dropped onto an essentially unyielding surface. The point of impact chosen as the most destructive was the packages bolt ring closure on the top edge of the drum. To achieve the desired impact orientation the package was suspended by one point of contact directly opposite the impact point such that the attachment point,

center of gravity and impact point were all vertically aligned. The drums used for this tested had previously undergone the 4' free drop test and the penetration test. Following the drop the package was carefully inspected. The drums suffered minimal damage. The bolt ring was deformed slightly in and down but was still fully functional.

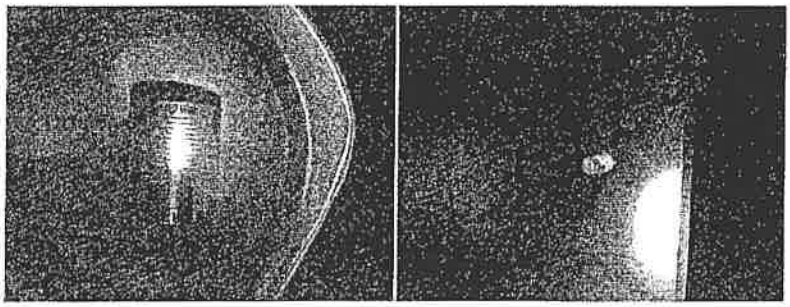


6. Radiation Survey & Leak Detection

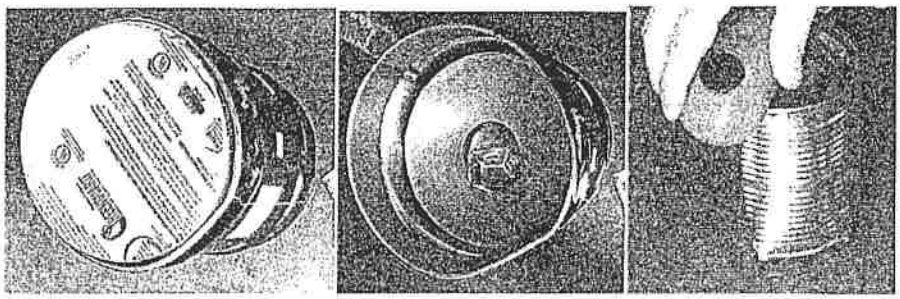
Following all testing the radiation package was sent to QA for a full package survey. The results of the survey can be found below.

Actual Post-Test Radiation Readings				
Surface Location	Surface Reading		One Meter Reading	
	mSv/h	mrem/h	mSv/h	mrem/h
Top	0.87	87	0.0153	1.53
Bottom	1.09	109	0.0187	1.87
12 - 3	0.42	42	0.0128	1.28
3 - 6	0.42	42	0.0196	1.96
6 - 9	0.39	39	0.0108	1.08
9 - 12	0.23	23	0.0122	1.22

The fluorescent package was deconstructed and inspected under black light for any sign of leakage. No leakage was detected from the containment can nor the vial. Thus, the package is certified leak free.



Below are pictures of the deconstruction under normal lighting. The can was damaged on both the top and bottom but remained fully sealed. The foam insulation had some damage, but no sheets were pierced through fully.



III. Results

After the completion of the normal condition test requirements, the free drop test, penetration test, and 30' drop test, there was no breach or reduction in the effectiveness of the package. Below is a table comparing the radiation levels before and after testing. There was no radiation readings that increased by more than 20%, and the radiation levels were well below the acceptable limits for normal conditions of transport. The package continued to restrict the loss of radioactive contents and there was no visible leakage of material. Therefore, it is concluded that the Source Production Liquid Type-A Package meets all testing requirements of 10 CFR Part 71, Packaging and Transportation of Radioactive Material; TS-R-1, Regulations for the Safe Transport of Radioactive Material; TS-G-1.1, Advisory Material for the IAEA Regulations for the transport of Radioactive Material; IATA's Dangerous Goods Regulations.

Change in Radiation Readings				
Surface Location	Surface Reading		One Meter Reading	
	mSv/h	mrem/h	mSv/h	mrem/h
Top	-30.4	-30.4	-60.9	-60.9
Bottom	-6.8	-6.8	-38.9	-38.9
12 - 3	-60.7	-60.7	-48.2	-48.2
3 - 6	-62.8	-62.8	-31.5	-31.5
6 - 9	-73.3	-73.3	-61.3	-61.3
9 - 12	-86.8	-86.8	-63.7	-63.7

EXHIBIT H

Sandra Kusy

From: Kelley Richardt <kelley@spec150.com>
Sent: Thursday, May 28, 2015 1:41 PM
To: Kevin Schehr <kevin@spec150.com>
Subject: RE: Sr-89

Well, our RAM license allows Sr89 in the form of "sealed sources. unsealed pellets and special form"

Kelley Richardt
Regulatory and Quality Manager

Source Production & Equipment Co., Inc
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

From: Kevin Schehr [mailto:kevin@spec150.com]
Sent: Thursday, May 28, 2015 1:17 PM
To: 'Kelley Richardt'
Subject: RE: Sr-89

Kelley,

The material is in liquid form The shipment is in normal form. We tested the type A package in normal form conditions.

Thank you

Kevin

Kevin Schehr, DBA
Vice President and General Manager

Source Production & Equipment Co., Inc
113 Teal Street, St. Rose, LA 70087 USA

Phone 504 464 9471 Fax 504 467 7685
www.spec150.com

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From: Kelley Richardt [mailto:kelley@spec150.com]
Sent: Thursday, May 28, 2015 12:50 PM
To: 'Kevin Schehr'
Subject: Sr-89

Kevin,

What is the form of the Sr-89? Is it a liquid? If so can you give me some information about the sealed source, I assume that would be the form of material.

Kelley Richardt
Regulatory and Quality Manager

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

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EXHIBIT I

Message

From: Kelley Richardt [kelley@spec150.com]
Sent: 7/24/2015 6:18:30 PM
To: Schehr, Kevin [kevin@spec150.com]
Subject: FW: LA RAM 2966-L01
Attachments: image001.gif

I received the updated license today with the new possession limits, we defined "short lived" as less than 120 days.

Kelley Richardt
Regulatory and Quality Manager

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

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From: Kelley Richardt [mailto:kelley@spec150.com]
Sent: Tuesday, June 16, 2015 11:54 AM
To: 'James Pate'
Subject: LA RAM 2966-L01

Jim,

Source Production and Equipment Company (SPEC) is requesting revision of our RAM license to allow the following:

1. Possession of Sr-89 and other short lived radioisotopes in liquid or normal form.
2. Revise section 9.1.5.4 of the O&E as the air monitor does not produce strip charts. Revise the second sentence to replace the words "monitor strip charts" with "documentation of air monitoring".

Should you need any additional information please do not hesitate to contact me. If this email should be sent elsewhere, please let me know.

Thanks, Kelley

Kelley Richardt
Regulatory and Quality Manager

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
Phone: 504.464.9471 Fax: 504.467.7685
www.spec150.com

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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE
RADIATION LICENSING
P.O. BOX 4312
BATON ROUGE, LOUISIANA 70821-4312

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Louisiana Environmental Quality Act (Louisiana Revised Statutes 30:2101 et seq.) and the Louisiana Radiation Regulations, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess and transfer radioactive material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in the Louisiana Revised Statutes 30: 2105 of the Louisiana Nuclear Energy and Radiation Control Law, and is subject to all applicable rules, regulations, and orders of the Department now or hereafter in effect, including the Louisiana Radiation Regulations (LAC 33:XV) and to any condition specified in the license.

LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Source Production & Equipment Company, Inc. 113 Teal Street St. Rose, Louisiana 70087-9691 Attention: R. D. Donny Dicharry Radiation Safety Officer	LA-2966-L01	August 31, 2016
	PREVIOUS AMENDMENTS ARE VOID AMENDMENT NUMBER 67	AI NUMBER 38844
	THIS LICENSE ISSUED PURSUANT TO AND IN ACCORDANCE WITH Email	
	SIGNED BY: Kelly Richardt	DATE June 16, 2015

1.	2. ISOTOPE MASS NO.	3. MAXIMUM NUMBER OF SOURCES	4. MAXIMUM ACTIVITY OR QUANTITY PER SOURCE*	5. SEALED SOURCE IDENTIFICATION CHEMICAL FORM—PHYSICAL STATE	6. STORAGE CONTAINER OR EXPOSURE DEVICE	7. AUTHORIZED USE
Any	Any	Total	2 Ci	Sealed Sources, Unsealed Pellets and Special Form		Sources only as impurities in the encapsulation
Any	Any	Total	3 Ci	Sealed, Liquid, or Normal Form		Distribution to authorized users
(short lived radioisotopes, half-life no longer Than 120 days)						
Any (Except SNM)*	Any	Total	500 mCi	Sealed Sources		Calibration Standards and Survey Meter Check Sources
Any (Except SNM)*	Any	Total	6,000 Ci	Sealed Sources**		Radioactive Waste Storage and Transfer for Disposal
Fe	55	Any	40 mCi	AEA Model IEC.A1**	NITON XLi-Series	X-Ray Fluorescence
Cd	109	Any	50 mCi	AEA Models CUC.D1 or CUC.P1 IPL Model XFB-3**		
Am	241	Any	30 mCi	AEA Models AMCL or AMC.P4 IPL Model XFB-4**		

*pCi-picocurie, µCi-Microcurie, mCi-Millicurie, Ci-Curie

D. Chance McNeely
Assistant Secretary

DATE

Am	243	Total	1 Ci	Sealed Sources		Distribution
Cm	248	Total	1 Ci	Sealed Sources		Distribution
Co	60	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Industrial and Radiographic Sources
Se	75	Total	20,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Sr	89	Total	3 Ci	Sealed Sources, Unsealed Pellets, and Special Form		Distributions of Approved Sealed Sources
Cs	137	1	2,000 Ci	Sealed Source Model, Oak Ridge National Laboratory Model SK 480-C, Type 8 Teletherapy Source**	Best Industries, Inc. Gammaradiator 100	Source Removal
Cs	137	Any	10 Ci	Sealed Sources		Instrument Calibration
Cs	137	Any	54 Ci	Sealed Sources		Distribution of Approved Sealed Sources and Devices for Internal Pipeline Crawlers
Cs	137	Any	2,200 Ci	J.L. Shepherd & Associates Model 6810**		Radioactive Waste Storage and Transfer for Disposal
Yb	169	Total	1,000 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Yb	175	Total	100 Ci	Sealed Sources, Unsealed Pellets and Special Form		Research and Development & Distribution of Approved Sealed Sources
Ir	192	Any	300 Ci	Sealed Sources and Special Form		Distribution of Approved Sealed Sources
Ir	192	Total	80,000 Ci	Metallic Pellets,		Manufacture of Sealed Sources

				Special Form	
Ra	226	Any	8 Ci	Sealed Sources	Distribution of Sources and Devices for Internal Pipeline Crawlers
U (Depleted)		Total	15,000 kg	Solid	Shielding Material

* SNM - Special Nuclear Material

**Sealed sources which have been evaluated and approved for licensing purposes and authorized for use in accordance with the Sealed Sources and Devices Registry.

The licensee is authorized to perform the following customer services at temporary job sites, at 113 Teal Street, St. Rose, Louisiana; 70087 (AI No. 38844), or at 119 Teal Street, St. Rose, LA 70087 (AI No.126644):

1. To fabricate, test, distribute, repair, demonstrate and modify approved industrial and radiographic sources, devices and associated equipment.

2. To distribute approved leak test kits and to perform tests for leakage and/or contamination;

3. To package, pick up, store and transfer sealed radioactive material and waste listed in the above schedule for ultimate disposal or reuse;

4. To retrieve industrial and radiographic sources;

5. To calibrate survey instruments, dosimeters, and alarm ratemeters;

6. To distribute EON Corporation Gamma Instrument Calibrator;

7. To distribute Gulf Nuclear, Inc. Model IC-50 Instrument Calibrator;

8. To calibrate survey instruments at temporary jobsites;

9. To temporarily store licensed radioactive materials (excluding SNM) belonging to other licensees.

10. To perform source removal of a teletherapy source from the Gammaradiator 100 device and package it for transportation.

11. To own, acquire, possess, use, or transfer NITON Corporation Model XLi Series including use at temporary jobsites.

1. The licensee is authorized to fabricate, test, store, distribute, repair and modify industrial and radiographic sources, devices and associated equipment at 113 Teal Street, St. Rose, Louisiana, and 119 Teal Street, St. Rose, Louisiana provided that such sources and devices have been approved by the Department, an Agreement State or the Nuclear Regulatory Commission prior to distribution. Demonstration of such approved sources and devices may also be performed at temporary jobsites of customers.

2. The licensee is authorized to do research and development at:

   113 Teal Street AI No. 38844
   St. Rose, Louisiana 70087

   119 Teal Street AI No. 126644
   St. Rose, Louisiana 70087

3. Radioactive material shall be used by, or under the supervision of, individuals designated by R. D. Donny Dicharry, Radiation Safety Officer, Rafael A. Bustillo, Assistant Radiation Safety Officer or Donny Faucheux, Assistant Radiation Safety Officer.

4. The Radiation Safety Officer for this license is R.D. Donny Dicharry. The Assistant Radiation Safety Officers for this license are Rafael A. Bustillo or Donny Faucheux.

   A. The licensee is authorized for packaging and storage of radioactive waste material in sealed form received from customers or resulting from the decontamination of facilities performed by the customer, provided that the maximum amount of radioactive waste possessed by the licensee at any one time does not exceed 6000 curies.

   B. Possession of Special Nuclear Materials is not authorized by this license.

6. The licensee shall maintain records appropriate to Chapter 4 of LAC 33:XV and LAC 33:XV.104.

7. The licensee shall not use radioactive material in or on human beings or in field applications where such activity is released to the environment unless otherwise provided by a specific condition of this license.

8. A. Each sealed source acquired from another person shall be tested for leakage and/or contamination upon receipt.

   B. Each sealed source fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall repair and/or decontaminate and retest the source prior to distribution.

   C. Each sealed source containing radioactive material retained by the licensee for temporary storage shall be tested for leakage and/or contamination upon receipt. The test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the sealed source. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semi-permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

Sealed sources which are stored, not being used, and identified as in storage for longer than six (6) months need not be retested for leakage and/or contamination. However, sealed sources which are stored for longer than six (6) months shall be tested for leakage and/or contamination prior to transfer or use.

D. If the test required by Section A or C of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with LAC 33:XV. A report shall be filed within five (5) days of the receipt of the test results with the Department, describing the equipment involved, the test results and the corrective action taken.

E. Tests for leakage and/or contamination shall be performed by the licensee or another licensee specifically authorized by the Department, an Agreement State, a licensing state or the Nuclear Regulatory Commission.

F. (1) The licensee is authorized to perform tests for leakage and/or contamination upon sealed sources and upon devices containing sealed sources that contain radioactive material at 113 Teal Street, St. Rose, Louisiana, 119 Teal Street, St. Rose, Louisiana and at customer sites using leak test kits which have been previously evaluated by the Department.

(2) A copy of the leak test results shall be sent to each customer and a copy maintained for inspection by the Department.

9. Depleted uranium shall not be milled, machined or otherwise modified by the licensee.

10. The Department shall require financial assurance in accordance with LAC 33.XV.325 and LAC 33.XV.351, except that all radioactive material rather than specifically by-product material, will be considered in the financial assurance requirements.

11. The licensee shall submit an updated decommissioning funding plan to be reviewed and approved by the Department three (3) years from the date of the most recent financial assurance review, performed July 29, 2014.

12. The licensee is authorized to distribute sources to persons specifically licensed and in accordance with this license and the Sealed Source and Device Registry (SSDR) Number as listed in the table below:

SSDR Number	Device Model Number/Source Model Number	Isotope	Maximum Activity (Ci)	Type of Customer License Required
LA-0612-S-101-S	"B" Series	Ir-192 & Co-60	100	Specific
LA-0612-D-102-S	C-1/ see SSDR for list of sources	Ir-192, Se-75, & Yb-169 Depleted Uranium	300 17 kg shielding	Specific
LA-0612-S-105-S	'G' Series	Co-60 Ir-192, Se-75, & Yb-169	110 240	Specific
LA-0612-S-106-S	"T" Series	Ir-192 Se-75 & Yb-169	140 240	Specific

LA-0612-S-808-S	S-1	Ir-192	120	Specific
LA-0612-S-110-S	SFU	Co-60 Ir-192	110 120	Specific
LA-0612-D-111-S	SPEC 150/ SPEC G-60	Ir-192, Se-75, & Yb-169 Depleted Uranium	150 17 kg shielding	Specific
LA-0612-D-112-S	SPEC-300/ G Series	Co-60	300	Specific
LA-0612-S-113-S	G-70	Co-60	300	Specific
LA-0612-S-114-S	G-80 Series	Co-60	110	Specific
LA-0612-S-802-S	"R" Series	Ir-192 Co-60	100 100	Specific
LA-0612-S-804-S	D-1	Ir-192	100	Specific
LA-0612-S-805-S	N-23	Ir-192	100	Specific
LA-0612-S-806-S	M-19	Ir-192	13	Specific
LA-0612-S-116-S	M-31	Yb-169	.005	Specific
LA-0612-S-117-S	M-15	Ir-192	12	Specific

LA-0612-D-803-S	C-1 (A)	Ir-192	100	Specific
LA-0612-D-807-S	SPEC Co-60 1/ SPEC G-37	Co-60 & Depleted Uranium	100 159 kg shielding	Specific
LA-0612-D-103-S	SPEC 2-T/SPEC G-1 or G-3	Ir-192 & Depleted Uranium	240 16 kg shielding	Specific
LA-0612-D-104-S	SPEC Check Model I/ SPEC G-23	Ir-192 & Depleted Uranium	100 10 kg shielding	Specific
LA-0612-D-108-S	SPEC Check Model II/ SPEC G-36	Ir-192 & Depleted Uranium	150 10 kg shielding	Specific

13. Any cleaning, maintenance or repair of the x-ray fluorescence devices that require removal of the source rod shall be performed by the manufacturer or by other persons specifically licensed by the Department, an Agreement State or the Nuclear Regulatory Commission.

14. The licensee shall maintain a utilization log for each portable x-ray fluorescence device. The utilization log shall include, but not be limited to, the identification of the device, dates of use, location of use, and the name of the authorized individual checking out the source or device.

15. A. Each portable x-ray fluorescence device shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position.

B. The device or its locked container shall have an additional lock to secure it in its storage location to prevent unauthorized removal of the device or container.

C. The locks shall be used when the device is in transport, in storage, or when not under the direct surveillance of an authorized user.

The licensee shall adhere to the following with regards to the x-ray fluorescence analyzers:

A. The licensee shall adhere to the requirements of LAC 33:XV.453.

B. The licensee shall ensure that customers have the appropriate licensure for the device.

C. The State of Louisiana requires that these devices be specifically licensed.

D. Devices shall not be rented to unlicensed customers.

E. 1. The distributor shall report to the Department transfers of such devices.

2. For all transfers out of Louisiana the distributor shall report to the U.S. Nuclear Regulatory Commission or to the responsible state agency all transfers of such devices for use under the appropriate regulations.

3. Such reports shall identify each recipient by name and address, an individual by name and/or position who may constitute a point of contact between the agency and the recipient, the type and model of the device transferred, the quantity and type of radioactive material contained in the device, and customer license number.

17. A. Source holders of x-ray fluorescence devices shall be locked in the "off" or closed position when the device is not in use.

B. Sealed sources shall not be opened or removed from their source holders of x-ray fluorescence devices by the licensee.

18. The licensee is authorized only for research and development that does not involve humans.

19. If, in an emergency, it becomes necessary for the licensee to evacuate the facility at which radioactive material is stored, it shall be the responsibility of the licensee to notify the Office of Environmental Compliance (225) 219-3041 prior to leaving. The licensee shall submit a detailed description of how the storage location was secured prior to leaving and the licensee's temporary address, phone number(s) or other means of being contacted. This information shall be kept updated until the licensee is able to return to the licensed storage location.

20. The licensee shall comply with the requirements set forth in 10 CFR 32.201-"Serialization of nationally tracked sources." The licensee shall assign a unique serial number, composed only of alpha-numeric characters, to each nationally tracked source manufactured after February 6, 2007. A nationally tracked source as defined in 10 CFR 32.2, refers to a sealed source containing a quantity equal to or greater than Category 1 or Category 2 levels of any radioactive material listed in Appendix E to 10 CFR Part 20-"Nationally Tracked Source Thresholds."

21. Special Form material shall meet the test requirements of 10 CFR 71.75, encapsulation requirements of 10 CFR 71.4, and transportation requirements of 10 CFR 71.5.

22. The licensee shall comply with the requirements described in Order EA-07-305 (the Order). The licensee shall complete implementation of said requirements within 180 days from the issuance of the license amendment. The licensee shall notify the Department of Environmental Quality when they have achieved full compliance with the requirements described in the Order. The notification shall be made within twenty-five days after full compliance has been achieved. This notification shall include a certification that the Trustworthiness and Reliability (T&R) Official (and any subsequent T&R Official) is themselves deemed trustworthy and reliable by the Licensee as required in paragraph B.2. of the Order. The licensee shall notify

the Department of Environmental Quality within 24 hours if the results from a criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

23. A. Except as specifically provided otherwise by the license, the licensee shall possess and use radioactive material described in all schedules of this license in accordance with LAC 33:XV and statements, representations, and procedures contained in the licensee's radioactive material license application (complete submission) dated February 28, 2007, all subsequent licensing correspondence, and all Sealed Source and Device applications, including all of the statements, representations, procedures, and subsequent correspondence submitted in support of, or pertaining to the Sealed Source and Device numbers listed in Condition 11 of this license.

B. The licensee shall comply with the requirements described in the Louisiana Department of Environmental Quality letter dated November 3, 2005 and attached document entitled "Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern." The licensee shall complete implementation of said requirements within 6 months from the issuance of the license amendment or the first day that radionuclides in quantities of concern are possessed at or above the limits specified in Table 1 of the attachment, whichever is later. Within 25 days after the implementation of the requirements of this condition, the licensee shall notify the Department of Environmental Quality in writing that it has completed the requirements of this condition.

DCM:KWB

EXHIBIT J

SULLIVAN & LYNCH, P.C.
ATTORNEYS AND COUNSELORS AT LAW
800 TURNPIKE STREET SUITE 300
NORTH ANDOVER, MASSACHUSETTS 01845

JAMES P. SULLIVAN

HERBERT J. LYNCH

THOMAS M. MIASKIEWICZ

TELEPHONE
(978) 681-6483

WEBSITE
WWW.S-L.COM

November 18, 2016

Chief, Foreign Trade Division
U.S. Census Bureau
4600 Silver Hill Road, Room 6K032
Washington, D.C. 20233-6700

RE: Source Production & Equipment Co., Inc.
Voluntary Self-Disclosure
15 C.F.R. 30.74
Electronic Export Information Filing Error - USPPI

Dear Madam or Sir:

I have enclosed a Voluntary Self-Disclosure signed by R. D. Dicharry, President of Source Production & Equipment Co., Inc. Mr. Dicharry advises in the Voluntary Self-Disclosure that I am the point of contact for Source Production & Equipment Co., Inc. in this matter. It is my understanding that in the future the Regulations, Outreach and Education Branch, Foreign Trade Division will contact me to discuss this matter. Also, within thirty days, we will provide your Office with proof that the involved EEI filings have been corrected in AES and the results of the review of exports by Source Production & Equipment Co., Inc. within the last five years which required EEI filing. Thank you for your attention to this letter and be assured of my client and my cooperation in your review of this matter.

Sincerely yours,

Sullivan & Lynch, P.C.

Herbert J. Lynch

Email: lynch@S-L.com

spec
SOURCE OF QUALITY

November 17, 2016

Chief, Foreign Trade Division
U.S. Census Bureau
4600 Silver Hill Road, Room 6K032
Washington, D.C. 20233-6700

RE: Voluntary Self-Disclosure
15 C.F.R. 30.74
Electronic Export Information Filing Error - USPPI

Dear Madam or Sir:

For and on behalf of Source Production & Equipment Co., Inc. (hereinafter SPEC), in accordance with the provisions of Title 15 Code of Federal Regulations Section 30.74 (15 CFR §30.74), I am advising you of the discovery by SPEC of errors made in reporting export information on Electronic Export Information (EEI) filings in AES for export shipments to the Peoples Republic of China (China) in calendar years 2015 and 2016.

By way of background, SPEC was established in 1974 and is a leading supplier of radiography equipment and sources. SPEC is licensed by the Nuclear Regulatory Commission (NRC) to export radioactive byproduct and source material.

Pursuant to its NRC General License, SPEC's Medical Division exported Stontium-89 radioisotope to Beijing Deyan Xingye Co., Ltd. which is located in China. The subject Strontium-89 radioisotope was previously imported into the United States from the Russian Federation (Russia) by ISOFLEX USA which is located in San Francisco, California. Pursuant to an agreement with ISOFLEX, SPEC received the subject Strontium-89 and packaged it for export to ISOFLEX USA's customer in China. In error, SPEC filed EEIs indicating that the origin of the export merchandise was Domestic (D) rather than the correct designation as Foreign (F). Additionally, SPEC reported on the EEI filing the License Code C33; whereas, the correct License Code is NO2NRC. By way of example, I have enclosed the EEI filing assigned ITN X20160713242226; together with the export documents related to this exportation. SPEC believes this error involves two (2) other export shipments; and is gathering the documentation covering those shipments which will be filed with your Office as a supplement to this Initial Voluntary Self-Disclosure.

Source Production & Equipment Co., Inc.
113 Teal Street St. Rose, LA 70087-9691 Phone 504/464-9471 FAX 504/467-7685 Website: www.spec150.com

SPEC intends to correct the error by amending the previously filed EEIs. Proof of the EEI amendments will also be filed with your Office as a supplement to this Voluntary Self-Disclosure. SPEC has instructed its employees that the term "origin" for purposes of EEI filing means the place (domestic or foreign) where the subject goods were produced or manufactured and further that packaging in the United States of a foreign item does not make the item a product of the United States. SPEC is confident that the EEI filing error reported to your Office in this Voluntary Self-Disclosure will not occur in the future.

SPEC requests that this submission be considered an Initial Voluntary Self-Disclosure as provided for in 15 CFR 30.74(c)(2) to be supplemented with a narrative account of this matter and proof of the correction of the involved EEIs. SPEC requests an extension until of thirty (30) days to complete this Disclosure.

SPEC has no knowledge of and has not been made aware of the commencement of any formal investigation, by the U.S. Census Bureau or another Government Agency, into any possible violation of law or regulation related to the issues addressed in this correspondence. Further, please note the erroneous designation of origin on EEI filings did not impact the grant of authority to SPEC by NRC to export the involved goods to pursuant to SPEC's General License as issued by the NRC.

The representations made in this Voluntary Self-Disclosure are made with the full knowledge and authorization of SPEC's senior management. Please also be advised that SPEC is represented in this matter by Attorney Herbert J. Lynch of the Law Firm of Sullivan & Lynch, P.C. of 800 Turnpike Street, Suite 300, North Andover, Massachusetts 01845 (telephone 617-591-8787 and email lynch@s-l.com). Attorney Lynch is authorized to discuss this matter with your representatives on behalf of SPEC.

Please contact Attorney Lynch or me if you have any questions regarding this Voluntary Self-Disclosure; and be assured of our cooperation with your review of this matter.

Sincerely yours,
Source Production & Equipment

R.D. Dicharry
President

Enclosures
cc: Herbert J. Lynch, Esq.

Electronic Export Information

ITN: X20160713242226
XTN: 720749290-023-27411053
Status: Accepted
Filing Option: 2

NOTIFICATION:974:SHIPMENT ADDED

1a. U.S. PRINCIPAL PARTY (USPPI) SOURCE PRODUCTION & EQUIPMENT 113 TEAL STREET, SAINT ROSE, LA 70087, US	b. USPPI EIN (IRS) or ID Number 720749290000
c. RELATED PARTIES TO TRANSACTION Non-Related	2a. DATE OF EXPORTATION 2016-07-13
b. ITN CREATED 2016-07-13	c. ITN LAST UPDATED 2016-07-13
3. TRANSPORTATION REFERENCE NO.	EQUIPMENT NUMBER(S) / SEAL NUMBER(S)
4a. ULTIMATE CONSIGNEE NAME, ADDRESS AND TYPE BEIJING DEYAN XINGYE CO. LTD NO. 80 NORTH XIAOZHUANG, YANCUN, TOWN FANGHSAN DISTRICT, BEIJING, CN ULTIMATE CONSIGNEE TYPE: D - DIRECT CONSUMER b. INTERMEDIATE CONSIGNEE NAME AND ADDRESS	5a. FORWARDING AGENT NAME AND ADDRESS b. FILER NAME AND ADDRESS SOURCE PRODUCTION & EQUIPMENT 113 TEAL STREET ST. ROSE, LA 70087, US
6. STATE OF ORIGIN/FTZ NO. LA	7. COUNTRY OF ULTIMATE DESTINATION CN
8. METHOD OF TRANSPORTATION 40	9. EXPORTING CARRIER/CONVEYANCE NAME FEDEX
10. PORT OF EXPORT 2002 - NEW ORLEANS, LA	11. PORT OF UNLADING / 12. CONTAINERIZED (Vessel Only)
13. CARRIER IDENTIFICATION CODE FX	14. SHIPMENT REFERENCE NO. 023-27411053
15. ENTRY NUMBER	16. HAZARDOUS MATERIALS YES
17. IN BOND CODE 70	18. ROUTED EXPORT TRANSACTION NO

20. SCH B/HTS DESCRIPTION of COMMODITIES

a. LINE	b. D/F	c. SCHEDULE B/HTS NUMBER		e. SHIPPING		g. VALUE (U.S. Dollars, omit

SEQ NBR			d. QUANTITY. - UNIT(S)	WEIGHT (KG)	f. VIN/PRODUCT NUMBER/VEHICLE TITLE NUMBER	cents) *Selling price or cost if not sold*
1	D	RADIOACTIVE MATERIAL EXPORT INFO CODE: 05 HTS: 2844.40.0021 LICENSE NUMBER: NLR LICENSE CODE: C33	17 MBQ	0		39115

Do not submit printout to Customs

Sr-89

Shipment 5 to BDX

Checklist for SPEC:

Item			Not
1	EST. SHIPMENT FROM RUSSIA	LH1449 of 29 Jun 2016 to FRA; and LH440 of June 30, 2016 IAH | AWB 020-DME-5342-9	
2	EST. SHIPMENT BY SPEC	Outbound shipment scheduled on/about Wednesday, July 6, 2015. *Please confirm actual departure by SMS, ASAP, to Richard McKannay*: **+1-415-217-96**	
3	CONSIGNEE	Beijing Deyan Xingye Co., Ltd. (BDX) No.80 North Xiaozicaowu, Yancun Town, Fangshan District, 102412 Beijing, China DESTINATION AIRPORT: CPT, Shanghai Pudong International Airport (PVG) HOLD & NOTIFY 刘金彦 / Susan Liu 手机(Mob): 13641096361	BDX's PRC Tax Identificatio BDX's PRC Customs Registr
4	SHIPPING DOCUMENTS CHECKLIST	1. Air Waybill, 2. Dangerous Goods Declaration 3. Packing List (See, attached) 4. Decay Graph (See IUSA's sample, attached) 5. Shipping Label (IUSA will prepare print & send to SPEC) 6. No Wood Declaration (Must accompany original AWB) 7. Certificate of Analysis covering one ampoule 8. Commercial Invoice 9. Certificate of Origin from USA 10. Outside, additional label, "PRODUCT OF USA"	☐ To be prepared by SI ☐ Please prepare & sig ☐ See attached PDF; pl ☐ See attached. ☐ Please affix to inner ☐ Please print & sign. ☐ See attached Certific ☐ See attached file; ple ☐ Please prepare & ha ☐ Please print and atta
5	CHINA CUSTOMS CLEARING	Customs clearing will be done by BDX	
6	IUSA REQUEST	Following dispatch, please send clear and legible copies of all shipping documents, in PD	

SULLIVAN & LYNCH, P.C.

ATTORNEYS AND COUNSELORS AT LAW
800 TURNPIKE STREET SUITE 300
NORTH ANDOVER, MASSACHUSETTS 01845

JAMES P. SULLIVAN

HERBERT J. LYNCH

THOMAS M. MIASKIEWICZ

TELEPHONE
(978) 681-6483

WEBSITE
WWW.S-L.COM

January 17, 2017

International Trade Management Division
U.S. Census Bureau
4600 Silver Hill Road, Room 5K158
Washington, D.C. 20233-6700

ATTN: Kristi Sellers
Statistician, Trade Regulations Branch

RE: Source Production & Equipment Co., Inc.
Voluntary Self-Disclosure
15 C.F.R. 30.74
Electronic Export Information Filing Error - USPPI

Dear Ms. Sellers:

Reference is made to the Voluntary Self-Disclosure (VSD), dated November 17, 2016, that I filed with your Office on behalf of Source Production & Equipment Co., Inc. (hereinafter SPEC) and your email of November 22, 2016 advising that the aforementioned was assigned to you. In your email, you stated that SPEC has until January 22, 2017 to complete its VSD with the submission of all the information required by 15 CFR 30.74. In the VSD filing of November 17, 2016, SPEC advised the U.S. Census Bureau (Census) that I represented SPEC in this matter. The authority for Legal Counsel to represent individuals and Corporations before Federal Agencies is found at Title 5 United States Code §500. The representations made in this filing in support of SPEC's VSD are made with the full knowledge and authorization of SPEC senior management.

In addition to the information contained in SPEC's VSD filing of November 17, 2016 (i.e. the information suggested in 15 CFR 30.74(3)(i) and (ii)), you emphasized in your email of November 22, 2016 that in order to process the VSD, the Trade Regulations Branch required: 1) an explanation of when (Month/Year) and how the violations occurred; 2) a description of any mitigating circumstances; 3) corrective measures taken; 4) Internal Transaction Numbers(ITNs) of the corrected shipments; and 5) any correspondence from the Licensing Agency (Nuclear Regulatory Commission (NRC)) regarding the matters reported in SPEC's VSD. Before responding to your requests, as way of background, I will briefly restate information provided in SPEC's initial VSD filing, dated November 17, 2016.

SPEC is a duly organized and existing business corporation established in 1974. SPEC is a leading supplier of radiography equipment and sources. As explained in my email of November 23, 2016 which confirmed receipt of your email of November 22, 2016, SPEC is licensed by the NRC to export certain byproduct material in accordance with 10 CFR §110.23 to Countries not listed in 10 CFR §110.28. SPEC also holds Special Export Licenses PXB14a.08 and PXB14b.06 issued by NRC on May 26, 2015 and September 30, 2016. The export shipments that are the subject of SPEC's VSD involve exports to China made under the authority of SPEC's NRC General License 10 CFR §110.23. China is an approved Country for receipt of byproduct material exported under the authority of 10 CFR §110.23.

Explanation of When and How the Violations Occurred

In or around June, 2015, SPEC (more specifically SPEC's Medical Division) entered into an agreement with ISOFLEX USA, which is located in San Francisco, California, to receive and package Strontium-89 radioisotope; and subsequently export the Strontium-89 radioisotope to ISOFLEX's customer Beijing Deyan Xingye Co., Ltd. located in China. As

noted above, SPEC is authorized to export Strontium-89 radioisotope to China and other Countries pursuant to NRC General License 10 CFR §110.23. The subject Strontium-89 radioisotope would be imported into the United States by ISOFLEX USA from the Russian Federation (Russia). The agreement with ISOFLEX USA was made by Kevin Schehr who at that time was Vice President of SPEC. Mr. Schehr was terminated by SPEC on July 10, 2016 for cause unrelated to the matter reported in this VSD or any other export related matter. Mr. Schehr directed SPEC's Shipping Department that the involved export shipments should be processed in accordance with instructions issued by ISOFLEX USA. The instructions stated that the export merchandise should be identified and labeled as "product of USA". Subsequent to Mr. Schehr's termination, SPEC's senior management commenced a review of Mr. Schehr's work activities including the aforementioned agreement with ISOFLEX USA. In consultation with Counsel, SPEC concluded that the mere repackaging of Russian-produced Strontium-89 byproduct material in the United States did not transform the Strontium-89 byproduct material into a product of the United States. SPEC advised ISOFLEX USA that all future shipments of Strontium-89 received by SPEC from ISOFLEX USA that originated in Russia would be designated as a product of Russia if exported by SPEC on ISOFLEX USA's behalf. SPEC then determined that the error in designating the involved Strontium-89 as a product of the United States caused SPEC to file or have filed on its behalf Electronic Export Informations (EEIs) in AES that incorrectly designated the export merchandise as Domestic (D) rather than Foreign (F). SPEC thoroughly reviewed its export records to identify export transactions involving the aforementioned errors. The EEI filing error involves six (6) shipments which are identified under ITNs: 1) X20150916801540; dated September 18, 2015; 2) X20151028048499, dated October 28, 2015; 3) X20151208157237, dated December 8, 2015; 4) X20160218611214,

dated February 18, 2016; 5) X20160713242226, dated July 13, 2016; and 6) X20161007753579, dated October 7, 2016. In reviewing the aforementioned EEIs, SPEC also noted that the filings incorrectly reported License Code C33. The correct designation is NO2NRC which indicates goods being exported under NRC General License 10 CFR §110.23.

A Description of Any Mitigating Circumstances

Determining the country of origin of goods subjected to processing in the United States is recognized by those involved in international trade to frequently present complexity. In that respect, SPEC's Shipping Department personnel assumed that the instructions from Mr. Schehr and ISOFLEX USA to designate the involved Strontium-89 as a product of the United States, apparently based on the fact that the material was repackaged into a SPEC designed, fabricated and inspected USDOT approved shielding container, was appropriate. Please note that ISOFLEX identifies itself as a premier supplier of isotopes to the worldwide scientific, medical and industrial communities (see www..isoflex.com). One would reasonably assume that ISOFLEX USA was knowledgeable as to the determination of country of origin for international trade purposes. SPEC Senior Management became aware of this matter after Mr. Schehr left SPEC's employ when SPEC received a request from ISOFLEX USA that a shipment be exported to China according to the aforementioned instructions. On consultation with Counsel and analysis of the facts, SPEC concluded that the involved Strontium-89 radioisotope remained a product of Russia after packaging and processing of export by SPEC. SPEC's activities did not substantially transform the Strontium-89 radioisotope so as to make it a good of United States origin. SPEC so informed ISOFLEX USA and commenced action to correct any regulatory errors resulting

from the incorrect designation of the origin of Strontium-89 exported on behalf of ISOFLEX USA.

Corrective Measures Taken

SPEC has filed or caused to be filed corrected EEIs in AES in order to correct export information related to shipments of Strontium-89 byproduct material exported to China on behalf of ISOFLEX USA. SPEC also has notified the NRC, Export Controls and Non-Proliferation Branch, Office of International Programs, of the circumstances reported in this VSD and that corrected EEI filings in AES were made to properly report that the involved Strontium-89 byproduct material was being exported to China under the authority of NRC General License 10 CFR §110.23. I have enclosed a copy of SPEC's email exchange on January 3, 2017 with Stephen C. Baker, Licensing Officer, NRC Export Controls and Non-Proliferation Branch, Office of International Trade Programs.

SPEC enjoys an excellent reputation with all the regulatory agencies that monitor SPEC's business activities. The matters reported to Census in this VSD resulted from a unique, and limited in scope, business arrangement. SPEC senior management has directed that all SPEC personnel involved in international trade activities are properly trained so as to ensure compliance with all export related regulations to include the correct reporting of information required on EEIs filed in AES.

Internal Transaction Numbers (ITNs) of the Corrected Shipments

Enclosed please find the following corrected EEIs with related Airway Bills of Lading. The EEIs are identified as: 1) X20150916801540, dated September 18, 2015; 2) X20151028048499, dated October 28, 2015; 3) X20151208157237, dated December 8, 2015; 4) X20160218611214, dated February 18, 2016; 5) X20160713242226, dated July 13, 2016; and 6) X20161007753579, dated October 7, 2016. Please note that EEI/ITN

X20150916801450 was corrected in AES by SPEC's authorized freight forwarder, JW Allen & Co. Inc.; whereas the other five (5) EEI/ITNs were corrected in AES by SPEC.

Correspondence with Nuclear Regulatory Commission

I have enclosed a copy of email correspondence on January 3, 2017 between Kelley Richardt, SPEC's Regulatory and Quality Manger, and Stephen C. Baker, NRC Licensing Officer, Export Controls and Non-Proliferation Branch, Office of International Programs. Licensing Office Baker confirmed that NRC does not require a voluntary self-disclosure of the matters reported to Census in SPEC's VSD; but he will maintain a record of SPEC's self-reporting to NRC of this matter.

Summary

SPEC is confident that its AES EEI internal control procedures ensure compliance with SPEC's obligations under the Foreign Trade Regulations and related laws; and regrets any inconvenience caused Census by the EEI filing errors reported in this Voluntary Self-Disclosure. If you have any questions or require additional information/documentation, please do not hesitate to contact me. Please be assured of our continued cooperation with you in your review of this matter.

Sincerely yours,

Herbert J. Lynch
Attorney for Source Production & Equipment Co., Inc.

Enclosures

cc: R. D. Dicharry, President
Source Production & Equipment Co., Inc.

023 | MSY | 27411053 023 - 27411053

Shipper's Name and Address
Source Production and Equipment Company, Inc.
113 Teal Street
St. Rose, LA 70087
TEL: 504-464 -9471

Shipper's Account Number
0701-0189-0

Not Negotiable
Air Waybill
Issued by
FEDEX

Copies 1, 2 and 3 of this Air Waybill are originals and have the same validity.

Consignee's Name and Address
Beijing Deyan Xingye Co. Ltd
No. 80 North Xiaozicaowu
Yancun Town, Fangshan Dist.
Beijing 102412 China - Ctc: Susan Liu MOB: 13641096361

Consignee's Account Number

It is agreed that the goods declared herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF. ALL GOODS MAY BE CARRIED BY ANY OTHER MEANS INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRARY INSTRUCTIONS ARE GIVEN HEREON BY THE SHIPPER, AND SHIPPER AGREES THAT THE SHIPMENT MAY BE CARRIED VIA INTERMEDIATE STOPPING PLACES WHICH THE CARRIER DEEMS APPROPRIATE. THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.

Issuing Carrier's Agent Name and City

Accounting Information
**** IP1 SHIPMENT****
DIRECT SHIPPER
NO TSA LETTER REQUIRED
NO IAC LETTER REQUIRED

Agent's IATA Code

Account No.
0701-0189-0

Airport of Departure (Addr. of First Carrier) and Requested Routing
NEW ORLEANS

Reference Number

Optional Shipping Information
IP1

To	By First Carrier	Routing and Destination	to	by	to	by
MEM	FX					

Currency	CHGS Code	WT/VAL PPD	WT/VAL COLL	Other PPD	Other COLL	Declared Value for Carriage	Declared Value for Customs
USD		X		X			39,115.00

Airport of Destination
SHANGHAI (PVG)

Requested Flight/Date
1313/13th 5015/15th

Amount of Insurance

INSURANCE - If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of Insurance".

Handling Information
DANGEROUS GOODS AS PER ATTACHED DGD - CARGO AIRCRAFT ONLY. PASSENGER AIRCRAFT OK OUTSIDE US JURISDICTION.

SCI

1 DRUMS HAZMAT

No. of Pieces RCP	Gross Weight	lb/k	Rate Class / Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (incl. Dimensions or Volume)
1	9.00	K	N	9.00	12.44	124.40	UN2915, RADIOACTIVE MATERIAL, TYPE A PACKAGE,7, LIQUID CHLORIDE, Sr-89 17.02 GBq, Yellow II, TI: 0.2 1 @ 38X38X41 cm HAZMAT AES ITN : X20160713242226
1	9.00					124.40	

Prepaid 124.40
Weight Charge
Collect
Valuation Charge
Tax

Other Charges
DG: 66.25
PU: 20.00
FSC: 2.89

Total Other Charges Due Agent 89.14
Total Other Charges Due Carrier

I hereby certify that the particulars on the face hereof are correct and that insofar as any part of the consignment contains dangerous goods, I hereby certify that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labeled, and in proper condition for carriage by air according to applicable national governmental regulations.
NATHAN GORBACH — Shipping Specialist
Signature Name — Title
Source Production & Equipment Co., Inc.

Total Prepaid 213.54
Total Collect

Currency Conversion Rates
CC Charges in Dest. Currency

13-Jul-2016 — ST.ROSE, LA
Executed on (date) — at (place) — Signature of Issuing Carrier or its Agent

For Carrier's Use only at Destination
Charges at Destination
Total Collect Charges

023 - 27411053

ORIGINAL 3 (FOR SHIPPER)

SHIPPERS DECLARATION FOR DANGEROUS GOODS (PROVIDE AT LEAST 2 COPIES TO AIRLINE.)

Shipper
SPECMED DIVISION OF
Source Production & Equipment Co., INC.
113 Teal Street
St. Rose LA. 70087 US

Air Waybill No. (023-2741 1053)

Page 1 of 1 Pages

Shipper's Reference # (15-DY/JA001)

Consignee
BEIJING DEYAN XINGYE CO. LTD.
NO. 80 NORTH XIAOZICAOWU, YANCUN
TOWN, FANGSHAN DISTRICT,
102412 BEIJING, CHINA

Two completed and signed copies of this Declaration must be handed to the operator

Warning

Failure to comply in all respects with this applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo Agent

Transport details

This Shipment is within the Limitations prescribed for: (delete non applicable)

CARGO AIRCRAFT ONLY

Airport Departure

New Orleans, La.

Airport of Destination: SHANGHAI, CHINA

Shipment Type: (delete non-applicable)

RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

UN Number or identification, proper shipping name, Class or Division (subsidiary risk), packing group (if required). And all other required information.

UN2915, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7,
Sr-89, LIQUID, CHLORIDE, 1 - TYPE A PACKAGE X 17.02 GBq
RADIOACTIVE YELLOW-II, Ti: 0.2 , DIMS: 38 X 38 X 41 cm

Additional Handling Information: THIS SHIPMENT MAY BE CARRIED ON PASSENGER AIRCRAFT OUTSIDE U.S. JURISDICTION. SOURCE PRODUCTION: 24 HOUR EMERGENCY RESPONSE TELEPHONE NUMBER +001 (504) 464-9471

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled/placarded, and are in all respects in the proper condition for transport by air according to the applicable International and National Government Regulations. I declare that all of the applicable air transport requirements have been met.

USA /+ 001 (504) 464-9471 *Emergency Telephone Number*

Name/Title of Signatory
NATHAN GORBACH/
SHIPPING SPECIALIST
Place and Date
ST. ROSE, LA 13/07/16
Signature
(see warning above)

FOR RADIOACTIVE MATERIAL SHIPMENT ACCEPTABLE FOR PASSENGER AIRCRAFT, THE SHIPMENT CONTAINS RADIACTIVE MATERIAL INTENDED FOR USE IN OR INCIDENT TO RESEARCH, MEDICAL DIAGNOSIS OR TREATMEN, ADR EUROPEAN TRANSPORT STATEMENT: CARRIAGE IN ACCORDANCE WITH 1.1.4.2.1

Commercial Invoice

SELLER/SHIPPER (Name, Full Address, Country)	Invoice Date and Number	Customer Order Number
SPECMED Division, Source Production & Equipment Co., Inc. 113 Teal Street St. Rose, LA 70087, USA Tel 504 464-9471 • Fax 504 467-76	July 7, 2016	15-DY/JA-001
Tax Identification Number (EIN) 72-0749290	Tracking ID/Air Waybill No.	

CONSIGNEE (Name, Full Address, Country)	Buyer (If Other than Consignee)
Beijing Deyan Xingye Co.,Ltd. No.80 North Xiaozicaowu Yancun Town, Fangshan District 102412 Beijing, CHINA Tel: 86-10-60389303-8006 Fax: 86-10-6038918	

Port of Lading	Terms and Conditions of Delivery and Payment (Incoterms)
Louis Armstrong New Orleans International Airport, USA (MSY)	CPT, Shanghai Pudong International Airport (PVG)
Final Destination: Shanghai, CHINA Exporting Carrier: FEDEX	
Other Transportation Information July 13, 2016	Currency of Sale USD

Marks and Numbers	Total Number of Packages	Total Gross Weight (kg)	Cubic Meters
None	1/1	12.0	0.059

Complete And Accurate Commodity Description And Country of Manufacture	Quantity/ Unit of Measure	Unit Price	Amount
Strontium-89 (Sr-89) radioisotope; Form: liquid aqueous; research grade; HTS (USA): 2844.40.00.20; UN2915. PRODUCT OF USA	500 millicurie (mCi)	$78.23	$39,115.00

These commodities, technology, or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to United States law is prohibited.

I declare all the information contained in this invoice to be true and correct.

July 13, 2016 — St. Rose, Louisiana USA

Signature and Status of Authorized Person — Date — Place

Nathan Gorbach, Shipping Manager

Packing Costs	(Included)
Freight Costs	(Included)
Other Transportation Costs	(Included)
Handling	(Included)
Insurance Costs	(Included)
Assists	(Included)
Additional Fees	(Included)
Duties and Taxes	(Not Included)
Total Invoice Value For Customs Purposes	$39,115.00

SPECMED DIVISION
Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
T: 504.464.9471; F: 504.467.7685;
E: nathan@spec150.com

PACKING LIST

CUSTOMER:

Beijing Deyan Xingye Co., Ltd.
No. 80 North Xiaozicaowu,
Yancun Town, Fangshan District,
102412 Beijing, CHINA

Tel: +81-480-37-1555

OUR NUMBER: Sr-89 - 150607-01

DATE: July 13, 2016

CUSTOMER ORDER NO.: 15-DY/JA-001

CONTACT PERSON: Joseph R. Dauzat, Shipping Mgr.

SHIPMENT VIA: FEDEX

SHIPMENT DATE: On/About February 13, 2016

PRODUCT

DESCRIPTION:	Radioisotope Strontium-89 in chloride solution in 0.05 M HCl UN Number 2915
SPECIFIC ACTIVITY:	≥ 0.46 Ci/g
LOT ACTIVITY:	≤ 500 mCi
VOLUME:	2.5 mL (consisting of 1 ampoule x 2.5 mL)
PACKING:	Type A

SPECMED DIVISION
Source Production & Equipment Co., Inc.

July 13, 2016
Date

Nathan Gorbach
Shipping Manager

Declaration of No Coniferous Wood Packing Material

To the Service of China Entry & Exit Inspection and Quarantine:

"It is declared that this shipment of radioisotope Strontium-89 in chloride solution in 0.05 M HCl does not contain solid or coniferous wood packing materials."

SPECMED Division,
SOURCE PRODUCTION & EQUIPMENT CO., INC.

Date: July 13, 2016

Nathan Gorbach,
Shipping Manager

spec med™

SpecMed Division

Source Production & Equipment Co., Inc.
113 Teal Street, St. Rose, LA 70087 USA
T: 504.464.9471; F: 504.467.7685;
E: shipping@spec150.com

Customer / Consignee:

Deliver To:

Beijing Deyan Xingye Co., Ltd.
No. 80 North Xiaozicaowu,
Yancun Town, Fangshan
District,
102412 Beijing, CHINA

刘金彦 (Susan Liu)
电话 T: 86-10-60389303-8006
传真 F: 86-10-60389180
手机 M: 13641096361
邮箱 E: deyan@beijingdeyan.com
公司网页 W: www.beijingdeyan.com

DESTINATION AIRPORT: Shanghai Pudong Intl Airport (PVG)
Hold & Contact Consignee

Contents:

REF: Purchase Order No.: 15-DY/JA-001

DESCRIPTION:	Radioisotope Strontium-89 in chloride solution in 0.05 M HCl
SPECIFIC ACTIVITY:	≥ 0.46 Ci/g
LOT ACTIVITY	≤ 500 mCi
VOLUME:	2.50 mL (1 ampoule x 2.50 mL)

Product of USA;
Country of Export: USA

Packing:

Dimensions:	37.5 cm (dia) x 40.65 cm (ht)
Gross Weight:	13.0 kgs
Net Weight:	0.25 kgs

REFER to:
No Wood Declaration
In Shipping Documents

Drum 1 of 1

Product of USA

Product of USA

EXPORT LICENSE

NRC FORM 250P
(12/10)

United States of America
Nuclear Regulatory Commission
Washington, D.C. 20555

NRC LICENSE NO.: PXB14a.08

Page 1 of 3

NRC DOCKET NO.: 11006200

LICENSE EXPIRES: May 31, 2025

Pursuant to the Atomic Energy Act of 1954, as amended, and the regulations issued by the Nuclear Regulatory Commission (NRC) pursuant thereto, and in reliance on statements and representations heretofore made by the applicant/licensee, this license is hereby issued authorizing the licensee to export the byproduct materials listed below, subject to the terms and conditions herein. This license is only valid if the licensee or 'Other Party(ies) to Export' maintain the requisite NRC or Agreement State domestic license(s).

LICENSEE	ULTIMATE FOREIGN CONSIGNEE(S)
Source Productions & Equipment Co., Inc. Attn: Kelley Richardt 113 Teal Street St. Rose, LA 70087 **APPLICANT'S REFERENCE: PXB14a.07**	See 'County(ies) of Ultimate Destination'
INTERMEDIATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) **NONE**	**OTHER PARTY(IES) TO EXPORT** **NONE**

COUNTRY(IES) OF ULTIMATE DESTINATION: Argentina, Australia, Austria, Bangladesh, Belarus, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, China and Hong Kong, Cyprus, Czech Republic, Denmark, Estonia, Ethiopia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, Latvia, Lithuania, Luxembourg, Mexico, Namibia, Netherlands, New Zealand, Norway, Philippines, Poland, Portugal, Qatar, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, United Arab Emirates, United Kingdom, and Vietnam.

CONDITIONS, NOTES, AND DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P, BYPRODUCT AND SOURCE MATERIALS TO BE EXPORTED
(NOTE: SEE PAGE 2 FOR DEFINITIONS OF CATEGORY 1 AND CATEGORY 2)

Export to countries listed in 'Country(ies) of Ultimate Destination,' Category 1 quantities of Co-60, Ir-192 and Se-75, not to exceed 200 TBq, contained in sealed sources for use in industrial gamma radiography and brachytherapy sources, is authorized. For Category 1 exports, see conditions on Page 3.

Export to countries listed in 'Country(ies) of Ultimate Destination,' Category 2 quantities of Co-60, Ir-192, Se-75, and Yb-169, contained in sealed sources for use in industrial gamma radiography and brachytherapy sources, is authorized.

Licensee is responsible for compliance with all applicable export, and other domestic regulatory requirements, including all terms and conditions of domestic material possession licenses. Licensee, if not already submitted with your application, must submit information required by 10 CFR § 110.32(d) and pertinent documentation required by 10 CFR § 110.32(g) at least 24 hours prior to shipment. See Page 2 for Mandatory Pre-shipment Notifications.

License expiration date is based on established limits. This license replaces PXB14a.07 and amends its authority by: adding Category 1 quantities of Co-60 and Se-75 and; 2) extending the expiration date from September 30, 2022 to May 31, 2025.

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954, as amended.

This license is subject to the right of recapture or control by Section 108 of the Atomic Energy Act of 1954, as amended, and to all of the other provisions of said Acts, now or hereafter in effect and to all valid rules and regulations of the NRC.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED NRC REPRESENTATIVE

NAME AND TITLE: David L. Skeen, Deputy Director
Office of International Programs

DATE OF ISSUANCE: May 26, 2015

MANDATORY ADVANCED NOTIFICATIONS PER 10 CFR PART 110.50(c)

The following Advanced Notifications must be made to both the NRC and, in case of exports, the government of the importing country in advance of each shipment:

Advanced Notifications to the NRC are to be emailed to hoo.hoc@nrc.gov (preferred method) or faxed to the NRC at 301-816-5151. In the subject line of the email or on the fax cover page include: "10 CFR 110.50(c) Notification." For technical assistance, use the same e-mail address or call 301-816-5100.

Advanced Notifications to the government of the importing country must be emailed or faxed to the appropriate foreign government authorities. To locate the point-of-contact for international Advanced Notifications see: http://www-ns.iaea.org/downloads/rw/imp-export/import-export-contact-points.pdf. In the subject line of the email or on the fax cover page include: "NOTIFICATION TO THE IMPORTING STATE PRIOR TO SHIPMENT OF CATEGORY 1 OR 2 RADIOACTIVE SOURCES." For technical assistance or for countries not listed, contact the Office of International Programs' export/import staff at 301-415-2344.

Table 1: Appendix P to Part 110 Category 1 and Category 2 Radioactive Material Threshold Limits

Radioactive Material	Category 1		Category 2	
	Terabequerels (TBq)	Curies (Ci)[1]	Terabequerels (TBq)	Curies(Ci)[1]
Americium-241 (Am-241)	60	1,600	0.6	16
Americium-241/Beryllium (Am-241/Be)	60	1,600	0.6	16
Californium-252 (Cf-252)	20	540	0.2	5.4
Curium-244 (Cm-244)	50	1,400	0.5	14
Cobalt-60 (Co-60)	30	810	0.3	8.1
Cesium-137 (Cs-137)	100	2,700	1.0	27
Gadolinium-153 (Gd-153)	1,000	27,000	10.0	270
Iridium-192 (Ir-192)	80	2,200	0.8	22
Plutonium-238[2] (Pu-238)	60	1,600	0.6	16
Plutonium-239/Beryllium[2] (Pu-239/Be)	60	1,600	0.6	16
Promethium-147 (Pm-147)	40,000	1,100,000	400	11,000
Radium-226[3] (Ra-226)	40	1,100	0.4	11
Selenium-75 (Se-75)	200	5,400	2.0	54
Strontium-90 (Y-90)	1,000	27,000	10.0	270
Thulium-170 (Tm-170)	20,000	540,000	200	5,400
Ytterbium-169 (Yb-169)	300	8,100	3.0	81

Calculation of Shipments Containing Multiple Sources or Radionuclides:

The "sum of fractions" methodology for evaluating combinations of radionuclides being transported is to be used when import or export shipments contain multiple sources of multiple radionuclides. The threshold limit values used in a sum of the fractions calculation must be the metric values (i.e., TBq).

I. If multiple sources and/or multiple radionuclides are present in an import or export shipment, the sum of the fractions of the activity of each radionuclide must be determined to verify the shipment is less than the Category 1 or 2 limits of Table 1, as appropriate. If the calculated sum of the fractions ratio, using the following equation, is greater than or equal to 1.0, then the import or export shipment exceeds the threshold limits of Table 1 and the applicable security provisions of this part apply.

II. Use the equation below to calculate the sum of the fractions ratio by inserting the actual activity of the applicable radionuclides or of the individual sources (of the same radionuclides) in the numerator of the equation and the corresponding threshold activity limit from the Table 1 in the denominator of the equation. Ensure the numerator and denominator values are in the same units and all calculations must be performed using the TBq (i.e., metric) values of Table 1.

R1 = activity for radionuclides or source number 1
R2 = activity for radionuclides or source number 2
RN = activity for radionuclides or source number n

AR1 = activity limit for radionuclides or source number 1
AR2 = activity limit for radionuclides or source number 2
ARN = activity limit for radionuclides or source number n

$$\sum_{1}^{n}\left[\frac{R_1}{AR_1}+\frac{R_2}{AR_2}+\frac{R_n}{AR_n}\right] \geq 1$$

[1] The values to be used to determine whether a license is required are given in TBq. Curie (Ci) values are provided for practical usefulness only and are rounded after conversion.

[2] The limits for exports of Pu-238 and Pu-239/Be can be found in § 110.21.

[3] Discrete sources of Radium-226.

CONDITIONS, NOTES, AND DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P, BYPRODUCT MATERIALS TO BE EXPORTED

Source Production and Equipment Co., Inc. is prohibited from shipping 10 CFR Part 110 Appendix P Category 1 quantities of Co-60, Ir-192 and Se-75 to countries listed in 'Country(ies) of Ultimate Destination' until:

[1] Source Production and Equipment Co., Inc. has requested in writing from the U.S. Nuclear Regulatory Commission (NRC) to obtain specific consent from the importing country's regulatory authority, on a case-by-case basis;

[2] NRC has received and considered government-to-government consent pursuant to 10 CFR §110.42(e)(3); and,

[3] NRC has informed Source Production and Equipment Co., Inc. in writing, that it is authorized to ship the materials to 'Ultimate Foreign Consignee(s)'.

//END//

Emergency Response Information

In accordance with U.S.D.O.T. requirements 49 CFR Parts 172.602 and 172.604 and section 9.5.1.2 of the IATA Dangerous Goods Regulation; this document is made part of the Shipping Papers for radioactive material shipments. The proper shipping names and UN numbers for radioactive material generally shipped to or from SPEC are:

Radioactive Material, Type B(U) Package, *non fissile*, Class 7, UN2916.
Radioactive Material, Type A Package, special form, *non fissile*, Class 7, UN3332.
Radioactive Material, Type A Package, non-special form *non fissile*, Class 7, UN2915.
Radioactive Material, Excepted Package-Articles Manufactured from Depleted Uranium, UN2909.
Radioactive Material, Excepted Package - Limited Quantity of Material, UN2910
Radioactive Material, Low Specific Activity (LSA-1), UN2912.

EMERGENCY RESPONSE TELEPHONE NUMBER: USA / 504-464-9471
(Note: International Access Code varies according to the country from which the call is made.)

EMERGENCY RESPONSE INFORMATION:

Note: OSHA does not require an MSDS for radiation hazards; per 29 CFR 1910.1200 (b)(6)(xi) the scope of OSHA requirements does not include "ionizing and nonionizing radiation". This information is excerpted from the U.S.D.O.T. Emergency Response Guidebook with all non-applicable information deleted.

POTENTIAL HAZARDS:

Health Hazards: External radiation from unshielded radioactive material. Radioactive material; degree of hazard will vary greatly, depending on type and quantity of radioactive material.

Fire or Explosion: None

EMERGENCY ACTION:

Keep unnecessary people at least 150 feet away; greater distances may be necessary if advised by qualified Radiation Authority.
Isolate hazard area and deny entry.
Enter hazard area only to save life; limit entry to shortest possible time.
Detain uninjured persons exposed to radioactive material until arrival or instruction of qualified Radiation Authority.
Delay clean-up until arrival or instruction of qualified Radiation Authority.

FIRE:

Do not move damaged containers; move undamaged containers out of fire zone.
Fight fire from maximum distance.

SPILL OR LEAK:

Do not touch damaged containers.
Damage to outer container may not affect primary inner container.
Special Form capsules are not expected to leak as a result of an accident or fire.

FIRST AID:

Except for the injured, detain persons exposed to radioactive material until arrival or instruction of Radiation Authority.

NOTE: Emergency Response Information is also available in the ICAO Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods (Doc. 9481).

MAR 0 3 2017

UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

Mr. Herbert J. Lynch
Attorney
Sullivan & Lynch, P.C.
800 Turnpike Street, Suite 300
North Andover, MA 01845

Dear Mr. Lynch:

This is in response to the voluntary self-disclosure regarding Source Protection & Equipment Co., Inc. (SPEC) filing incorrect Electronic Export Information for six shipments. We understand the violation occurred due to personnel oversight and a misinterpretation of the definitions of "domestic" and "foreign" described in the Foreign Trade Regulations (FTR), Section 30.1. After discovering the errors, SPEC corrected the records in the Automated Export System (AES). Additionally, SPEC disclosed these shipments to the Nuclear Regulatory Commission (NRC). The NRC does not require a formal self-disclosure.

We appreciate the efforts on the part of SPEC to correct the shipment information and come into compliance with Title 15, Code of Federal Regulations, Part 30, FTR. The Data Analytics Branch, who currently monitors the performance of each AES filer, has reviewed the shipments and determined that these records were corrected. The corrective measures SPEC identified in the disclosure should help them maintain compliance in the future. It is important to note that failure to comply with the FTR requirements may result in shipment delays or penalties. Please refer to FTR Subpart H, Sections 30.70 through 30.74, for the penalty and enforcement procedures.

Thank you for your cooperation. This case is being closed; however, we reserve the right to reopen it if additional facts are uncovered or future discrepancies are noted. We have enclosed a fact sheet containing additional resources to assist your client in maintaining compliance. If you have any further questions, please contact Ms. Kristi Sellers, Trade Regulations Branch (TRB), International Trade Management Division (ITMD) or Ms. Kiesha Downs, Chief, TRB, ITMD on 800-549-0595, Option 3.

Sincerely,

Dale C. Kelly

Dale C. Kelly
Chief, International Trade Management Division

Enclosure

cc: R.D. Dicharry, President, Source Protection & Equipment Co., Inc.

SULLIVAN & LYNCH, P.C.
ATTORNEYS AND COUNSELORS AT LAW
800 TURNPIKE STREET SUITE 300
NORTH ANDOVER, MASSACHUSETTS 01845

JAMES P. SULLIVAN
HERBERT J. LYNCH
THOMAS M. MIASKIEWICZ

TELEPHONE
(978) 681-6483

WEBSITE
WWW.S-L.COM

March 28, 2017

Nader Mamish
Director, Office of International Programs
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
and
Peter Habighorst
Chief, Export Controls and Nonproliferation Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Source Production & Equipment Co., Inc.
Initial Voluntary Self-Disclosure of Possible Violations
10 CFR Part 110

Dear Messrs. Mamish and Habighorst:

Please be advised that I represent Source Production & Equipment Co., Inc. (hereinafter SPEC) of St. Rose, Louisiana. The authority for Counsel to appear on behalf of individuals and entities before Federal Agencies is found in Title 5 USC §500. As required by Section 500, I confirm that I am a member in good standing of the Bar of the Commonwealth of Massachusetts and admitted to practice before a number of Federal Courts. The representations made in this filing are made with the full knowledge and authorization of SPEC's Executive Management. In that respect, I have enclosed a letter from R.D. Dicharry, President of SPEC, certifying the accuracy of the representations made in this Submission.

On July 28, 2010, the NRC published a final rule in the Federal Register that amended several provisions of 10 CFR 110. The sealed source exclusion to the definition of "radioactive waste" was revised to confirm that the exclusion only applies to sources of "U.S. origin" being returned to an authorized domestic licensee. The purpose of this letter is to advise your

Offices that as a result of an internal audit of SPEC's import and export shipments, the management of SPEC discovered an apparent violation of the provisions of 10 CFR 110 concerning the importation of sealed disused radioactive source material. SPEC desires to report these matters to the NRC as a Voluntary Self-Disclosure. My client and I believe it advisable to report this matter to the U.S. Nuclear Regulatory Commission (hereinafter NRC) at this early stage and request that the NRC consider this Submission to be an Initial Voluntary Self-Disclosure; granting SPEC an extension of thirty (30) days from your receipt of this correspondence to conclude SPEC's internal audit and complete this Voluntary Self-Disclosure. At that time, SPEC intends to supplement this Initial Voluntary Self-Disclosure with: 1) a more detailed discussion of the circumstances surrounding this matter; 2) documentation relating to the involved importations of sealed disused sources and disposition thereof; 3) an explanation of the corrective actions taken by SPEC in response to management's discovery of the apparent violations; 4) a discussion of the factors to be considered by the NRC in mitigation of the apparent violations disclosed by SPEC.

SPEC's internal investigation, which included the assistance of the undersigned, was prompted by the discovery of activities undertaken by Kevin Schehr, SPEC's former Vice President. Kevin Scherh was the senior operational manager of SPEC and responsible for all of SPEC's day-to-day activities. Mr. Schehr was terminated by SPEC in July, 2016 for cause. Germane to the matters disclosed in this Initial Voluntary Self-Disclosure, it is noted that in 2008, Kevin Schehr received mandated quality assurance refresher training which included review of the NRC's regulations regarding the packaging and transportation of radioactive materials (10 CFR 71). Mr. Schehr also acknowledged in writing the provisions of 10 CFR 71.8 (Deliberate Misconduct).

By way of background, SPEC was established in 1974 and is a leading supplier of radiography equipment and sources. SPEC is licensed by the NRC to export radioactive byproduct and source material. SPEC operates internationally under both General and Specific Licenses. SPEC also holds Radioactive Material License LA-2966-L01, expiration date August 31, 2021, issued by the State of Louisiana which includes the authorization to store radioactive waste and transfer the same for disposal. During the course of its business in international commerce, SPEC has on numerous occasions received from foreign entities sealed disused radioactive source material. SPEC's records indicate that between 2011 and

2017, SPEC exported 444 sealed new sources and imported 444 sealed disused sources. Although the numerical comparison of imports to exports could indicate a "one-for-one" exchange of new sources for disused sources, SPEC believes that is not the case.

On August 28, 2013, the NRC published a Branch Technical Position (BTP) in the Federal Register to provide guidance on the application of the exclusion of United States origin sealed sources to the definition of "radioactive waste" (78 FR 53020). The BTP explained the circumstances that needed to be present in order for importation of a sealed disused source of unknown origin under the General License in 10 CFR 110.27. SPEC reads the BTP as requiring that an Importer undertake a good faith effort to determine the origin of the sealed disused sources intended for importation. SPEC understands that disused sources that originated in a Country other than the United States would require a Specific License unless the sealed disused source was imported for disposal in a Resource Conservation and Recovery Act (RCRA) facility or for the purposes of recycling pursuant to a contract or business agreement.

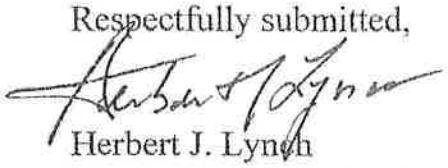
As a result of its internal investigation, SPEC has determined that Mr. Schehr was aware of the BTP's guidance regarding the origin of imported sealed disused sources. SPEC's internal investigation has revealed that of the 444 sealed disused sources imported between 2011 and 2017, 183 were of foreign origin. SPEC's internal investigation has found no evidence that good faith efforts were made to determine the origin of the imported sealed disused sources before the import occurred. The involved sealed disused sources are Iridium-192 (Ir-192), Selenium-75 (Se-75) and Ytterbium-169 (Yb-169). None of the aforementioned non-USA sealed disused sources were imported for disposal in a RCRA facility or for the purposes of recycling pursuant to a contract or business agreement.

I want to emphasize that the health and safety of the public has not been compromised by SPEC's importation of non-USA origin sealed disused sources. SPEC has not disposed of the sealed disused sources that SPEC has imported; and intends to continue to store the sealed sources, as authorized by the State of Louisiana until decay.

As stated above, SPEC will supplement this Initial Voluntary Self-Disclosure within 30 days of your receipt of this Submission. In the interim, please do not hesitate to contact me should you have questions or comments

regarding this matter. Please be assured of my client and my cooperation in your review of this matter.

Respectfully submitted,



Herbert J. Lynch
Counsel to Source Production
and Equipment Co., Inc.

Email: lynch@S-L.com

March 28, 2017

Nader Mamish
Director, Office of International Programs
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
and
Peter Habighorst
Chief, Export Controls and Nonproliferation Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Source Production & Equipment Co., Inc.
Initial Voluntary Self-Disclosure of Possible Violations
10 CFR Part 110

Dear Messrs. Mamish and Habighorst:

This letter accompanies the Initial Voluntary Self-Disclosure filed with the U.S. Nuclear Regulatory Commission (NRC) on behalf of Source Production & Equipment Co., Inc. (hereinafter SPEC) by Attorney Herbert J. Lynch. I hereby certify that Attorney Lynch is authorized by SPEC to make the aforementioned Initial Voluntary Self-Disclosure. I further certify that the representations made in connection with the Initial Voluntary Self-Disclosure are true and correct to the best of my knowledge and belief. Please be advised that SPEC is committed to fully cooperating with the NRC it its review of the matters addressed in the Initial Voluntary Self-Disclosure.

Sincerely yours,

Source Production & Equipment Co., Inc.

R.D. Dicharry
President

Source Production & Equipment Company, Inc.
113 Teal Street, St. Rose, La 70087 Phone: 504-464-9471 Fax: 504-4677-7685 www.spec150.com

NCL 29163842

023-29163842

Name and Address

Shipper's Account Number

Not Negotiable

Air Waybill

FEDEX
1980 HONCONNAH BLVD
MEMPHIS TN 38132 US

Issued by

Copies 1, 2 and 3 of this Air Waybill are originals and have the same validity.

It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF. ALL GOODS MAY BE CARRIED BY ANY OTHER MEANS INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRARY INSTRUCTIONS ARE GIVEN HEREON BY THE SHIPPER, AND SHIPPER AGREES THAT THE SHIPMENT MAY BE CARRIED VIA INTERMEDIATE STOPPING PLACES WHICH THE CARRIER DEEMS APPROPRIATE. THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.

Consignee's Name and Address

Consignee's Account Number

NEW ORLEANS LA 70087 US

Accounting Information

Issuing Carrier's Agent Name and City

Agent's IATA Code

Account No.

Reference Number

Optional Shipping Information

Airport of Departure (Addr. of First Carrier) and Requested Routing

NCL - NEWCASTLE

To	By First Carrier	Requested Routing					Currency	Chgs Code	WT/VAL PPD	WT/VAL COLL	Other PPD	Other COLL	Declared Value for Carriage	Declared Value for Customs
	FEDEX						GBP		X		X		NVD	500.00 GBP

Airport of Destination	Requested Flight/Date		Amount of Insurance	INSURANCE - If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of Insurance".
MSY - NEW ORLEANS IN			XXX	

Handling Information

ADDRESSED TEN (10) PIECES // CARGO AIRCRAFT ONLY
DANGEROUS GOODS AS PER ATTACHED SHIPPERS DECLARATION

Diversion contrary to U.S. law prohibited.

SCI X

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Ultimate destination

No. of Pieces RCP	Gross Weight	kg lb	Rate Class	Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (Incl. Dimensions or Volume)
10	614.0	K	G		614.0	2.09	1,283.26	RADIOACTIVE MATERIAL CARGO AIRCRAFT ONLY DANGEROUS GOODS AS PER ATTACHED SHIPPERS DECLARATION THE SHIPPER CONFIRMS THAT NO INK/TONER CARTRIDGES ARE PACKED IN THIS CONSIGNMENT.
10	614.0						1,283.26	

U.S. CUSTOMS & BORDER PROTECTION
NEW ORLEANS, LA
DELIVERY AUTHORIZED
DATE 2/2/2012
INSPECTOR'S STAMP
BADGE No.

Prepaid	Weight Charge	Collect
1,283.26		

Valuation Charge

Tax

Total Other Charges Due Agent

Total Other Charges Due Carrier
452.52

Total Prepaid
1,735.78

Total Collect

Currency Conversion Rates

CC Charges in Dest. Currency

For Carriers Use only at Destination

Charges at Destination

Total Collect Charges

Other Charges
FSC 30.00 FUEL SURCHARGE
FAC 35.00 DANGEROUS GOODS FEE
XDC 55.26 WAR RISK FEE
CHC 55.26 GLP & HNDLNG CPLS

Shipper certifies that the particulars on the face hereof are correct and that insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations.

KEITH DOUGLAS, UPS-SCS (UK) LTD, NEWCASTLE

Signature of Shipper or his Agent

24FEB2012 NCL

Executed on (date) at (place)

Signature of Issuing Carrier or its Agent

023-29163842

Andrews House
Princess Way
Low Prudhoe Ind Est
Prudhoe
Northumberland
NE42 6HB

Tel 01661 836886
Fax 01661 836866

gilligan engineering

Consignee

SPEC
113 TEAL STREET
ST ROSE
NEW ORLEANS, LOUISIANA
USA
70087

Invoice

GES6122102

Date	*Work Number*	*Customer Reference*
21/02/2012		

Item	*Product and description*			*Value*
1	Return of Spent Sources & Transport Containers			£
2	741 Projector - 15; #A045	1 of 10	1 Steel Container of 36 x 30 x 49 cms dimensions of 135 Kgs in weight	£12
3	SPEC PB - 1; #Y1, Y2	2 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 23 Kgs in weight	£12
4	SPEC C-1 - 14; #0111-571, CF253	3 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
5	SPEC C-1 - 44; #1010-419, F304	4 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
6	SPEC C-1 - 23; #B-152, 0311-A30	5 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
7	SPEC C-1 - 40; #0111-565, AB844	6 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12

Andrews House
Princess Way
Low Prudhoe Ind Est
Prudhoe
Northumberland
NE42 6HB

Tel 01661 836866
Fax 01661 836866

gilligan engineering

Consignee

SPEC
113 TEAL STREET
ST ROSE
NEW ORLEANS, LOUISIANA
USA
70087

Invoice
GES6122102

Date	*Work Number*	*Customer Reference*
21/02/2012		

Item	*Product and description*			*Value*
8	SPEC C-1 - 25; #B-149, B-131	7 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
9	SPEC C-1 - 43; #B-108, 0111-567	8 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
10	SPEC C-1 - 16; #60351B, D156	9 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12
11	SPEC C-1 - 52; #B180, A-72	10 of 10	1 Steel Container of 40 dia x 60 high cms dimensions of 45 Kgs in weight	£12

Shippers Declaration of Dangerous Goods

Shipper GILLIGAN ENGINEERING SERVICES
ANDREWS HOUSE, PRINCESS WAY
LOW PRUDHOE IND. EST., PRUDHOE
NORTHUMBERLAND
United Kingdom NE42 6HB

Air Waybill No. 023-29163842

Page 1 of 3 Pages

Shipper's Reference Number

Consignee
SPEC
113 TEAL STREET
ST ROSE
NEW ORLEANS, LOUISIANA
USA 70087

gilligan engineering

Andrews House, Princess Way, Low Prudhoe Ind Est
Prudhoe, Northumberland
NE42 6HB, UK

Tel 01661 836886
Fax 01661 836866

Two completed and signed copies of this Declaration must be handed to the operator

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

Transport Details

This shipment is within the limitations prescribed for: (delete non applicable)

[redacted] CARGO AIRCRAFT ONLY

Airport of Departure: LONDON STANSTED

Airport of Destination: NEW ORLEANS

Shipment type: (delete non-applicable)

[redacted] RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification				Quantity and type of packaging	Packing Inst	Authorization
UN No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group			
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7		Cobalt 60, Packed in one Type A Package x 237.3 GBq. Overpack Used.	II Yellow, TI of 0.6, of dimensions 36 x 30 x 49 cms.	B/012/S-96 Certificates Attached
UN 2915	RADIOACTIVE MATERIAL, TYPE A PACKAGE	7		Ytterbium 169, Packed in one Type A - Non Special Form x 67.48 GBq.	II Yellow, TI of 0.1, of dimensions 40 dia x 60 high cms.	
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7 C-114		Selenium 75, x 223.0 GBq, Iridium 192 x 63.16 GBq, All packed in one Type A Package.	II Yellow, TI of 0.1, of dimensions 40 dia x 60 high cms.	RU/6223/S-96 PL/0017/S-05 Certificates Attached
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7 C-144		Selenium 75, x 56.15 GBq, Iridium 192 x 2.773 GBq, All packed in one Type A Package.	II Yellow, TI of 0.1, of dimensions 40 dia x 60 high cms.	RU/6223/S-96 B/012/S-96 Certificates Attached

Additional Handling Information

EMERGENCY CONTACT: Chris Cole; Tel: 0044 1661 836886, 0044 7717 507238

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. I declare that all of the applicable air transport requirements have been met.

Name/Title of Signatory
A J Tierney
Technician

Place and Date
Prudhoe. 22-Feb-12

Shippers Declaration of Dangerous Goods

Shipper GILLIGAN ENGINEERING SERVICES
ANDREWS HOUSE, PRINCESS WAY
LOW PRUDHOE IND. EST., PRUDHOE
NORTHUMBERLAND
United Kingdom NE42 6HB

Air Waybill No. 023-29163842

Page 2 of 3 Pages

Shipper's Reference Number

Consignee
SPEC
113 TEAL STREET
ST ROSE
NEW ORLEANS, LOUISIANA
USA 70087

gilligan engineering

Andrews House, Princess Way, Low Prudhoe Ind Est
Prudhoe, Northumberland
NE42 6HB, UK

Tel 01661 836866
Fax 01661 836866

Two completed and signed copies of this Declaration must be handed to the operator

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

Transport Details

This shipment is within the limitations prescribed for: (delete non applicable)

[redacted] CARGO AIRCRAFT ONLY

Airport of Departure: LONDON STANSTED

Airport of Destination: NEW ORLEANS

Shipment type: (delete non-applicable)

[redacted] RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification				Quantity and type of packaging	Packing Inst	Authorization
UN No.	Proper Shipping Name	Class or Division (Subsidury Risk)	Packing Group			
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7	C-1 23 25	Iridium 192, x 148.6 GBq,Selenium 75 x 124.1 GBq, All packed in one Type A Package.	II Yellow, TI of 0.2, of dimensions 40 dia x 60 high cms.	USA/0608/S-96 USA/0785/S-96 Certificates Attached
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7	C-140	Selenium 75, x 351.0 GBq,Iridium 192 x 148.0 GBq, All packed in one Type A Package.	II Yellow, TI of 0.2, of dimensions 40 dia x 60 high cms.	RU/6223/S-96 -B/012/S-96 Certificates Attached
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7	C-125	Iridium 192, Packed in one Type A Package x 66.99 GBq.	II Yellow, TI of 0.2, of dimensions 40 dia x 60 high cms.	USA/0608/S-96 Certificates Attached

Additional Handling Information

EMERGENCY CONTACT: Chris Cole; Tel: 0044 1661 836886, 0044 7717 507238

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. I declare that all of the applicable air transport requirements have been met.

Name/Title of Signatory
A J Tierney
Technician

Place and Date
Prudhoe, 22-Feb-12

Shipper's Declaration of Dangerous Goods

Shipper
GILLIGAN ENGINEERING SERVICES
ANDREWS HOUSE, PRINCESS WAY
LOW PRUDHOE IND. EST., PRUDHOE
NORTHUMBERLAND
United Kingdom NE42 6HB

Air Waybill No. 02.3 - 2916384-2

Page 3 of 3 Pages

Shipper's Reference Number

Consignee
SPEC
113 TEAL STREET
ST ROSE
NEW ORLEANS, LOUISIANA
USA 70087

gilligan engineering

Andrews House, Princess Way, Low Prudhoe Ind Est
Prudhoe, Northumberland
NE42 6HB, UK

Tel 01661 836886
Fax 01661 836866

Two completed and signed copies of this Declaration must be handed to the operator

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

Transport Details

This shipment is within the limitations prescribed for: (delete non applicable)

[redacted] CARGO AIRCRAFT ONLY

Airport of Departure: LONDON STANSTED

Airport of Destination: NEW ORLEANS

Shipment type: (delete non-applicable)

[redacted] RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification				Quantity and type of packaging	Packing Inst	Authorization
UN No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group			
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7 C-143		Iridium 192, x 23.30 GBq,Selenium 75 x 228.8 GBq. All packed in one Type A Package.	II Yellow, TI of 0.2, of dimensions 40 dia x 60 high cms.	USA/0608/S-96 RU/6223/S-96 Certificates Attached
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7 C-116		Selenium 75, x 90.66 GBq,Iridium 192 x 74.92 GBq, All packed in one Type A Package.	II Yellow, TI of 0.1, of dimensions 40 dia x 60 high cms.	USA/0502/S-96 USA/0392/S Certificates Attached
UN 3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM	7 C1-52		Iridium 192, Packed in one Type A Package x 177.5 GBq.	II Yellow, TI of 0.1, of dimensions 40 dia x 60 high cms.	USA/0608/S-96 Certificates Attached

Additional Handling Information

EMERGENCY CONTACT: Chris Cole; Tel: 0044 1661 836886, 0044 7717 507238

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. I declare that all of the applicable air transport requirements have been met.

Name/Title of Signatory
A J Tierney
Technician

Place and Date
Prudhoe, 22-Feb-12

Andrews House, Princess Way
Low Prudhoe Industrial Estate, Prudhoe
Northumberland, NE42 6HB, UK

T: +44 (0)1661 836 806 F: +44 (0)1661 836 866 E: sales@gilligan-engineering.co.uk

gilligan engineering

Company:

Source Serial: **0111-567** Capsule Type: **RUSE**

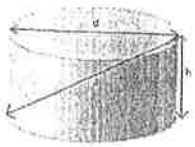
Half Life (days): **119.779** ISO: **99/C63545**

Isotope: **Selenium 75** Special Form: **RU/6223/S-96**

On Holder: **G7945**

Isotope Manufactured by:JSC SSC RIAR, DIMITROVGRAD-10, ULYANOVSK, REG. 433510, RUSSIA,

Physical Size: **2.5 x 2.5 mm Cylindrical**



Diameter: 2.5mm
Height: 2.5mm

Active Dimension: 3.54mm

Decay Table (GBq)

	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue
22-Feb-12	228.85	227.53	226.21	224.91	223.61	222.32	221.04	219.76	218.49	217.23	215.98	214.73	213.49	212.26
07-Mar-12	211.04	209.82	208.61	207.40	206.21	205.02	203.84	202.66	201.49	200.33	199.17	198.02	196.88	195.74
21-Mar-12	194.61	193.49	192.37	191.26	190.16	189.06	187.97	186.89	185.81	184.74	183.67	182.61	181.56	180.51
04-Apr-12	179.47	178.43	177.40	176.38	175.36	174.35	173.34	172.34	171.35	170.36	169.38	168.40	167.43	166.46
18-Apr-12	165.50	164.55	163.60	162.65	161.72	160.78	159.85	158.93	158.01	157.10	156.20	155.30	154.40	153.51
02-May-12	152.62	151.74	150.87	150.00	149.13	148.27	147.41	146.56	145.72	144.88	144.04	143.21	142.38	141.56
16-May-12	140.75	139.93	139.13	138.32	137.52	136.73	135.94	135.16	134.38	133.60	132.83	132.07	131.30	130.55
30-May-12	129.79	129.04	128.30	127.56	126.82	126.09	125.36	124.64	123.92	123.21	122.49	121.79	121.08	120.39
13-Jun-12	119.69	119.00	118.31	117.63	116.95	116.28	115.61	114.94	114.28	113.62	112.96	112.31	111.66	111.02
27-Jun-12	110.38	109.74	109.11	108.48	107.85	107.23	106.61	106.00	105.38	104.78	104.17	103.57	102.97	102.38
11-Jul-12	101.79	101.20	100.62	100.04	99.46	98.88	98.31	97.75	97.18	96.62	96.06	95.51	94.96	94.41
25-Jul-12	93.87	93.32	92.79	92.25	91.72	91.19	90.66	90.14	89.62	89.10	88.59	88.08	87.57	87.06
08-Aug-12	86.56	86.06	85.57	85.07	84.58	84.09	83.61	83.12	82.65	82.17	81.69	81.22	80.75	80.29
22-Aug-12	79.82	79.36	78.91	78.45	78.00	77.55	77.10	76.66	76.21	75.77	75.34	74.90	74.47	74.04
05-Sep-12	73.61	73.19	72.77	72.35	71.93	71.51	71.10	70.69	70.28	69.88	69.47	69.07	68.67	68.28
19-Sep-12	67.88	67.49	67.10	66.72	66.33	65.95	65.57	65.19	64.81	64.44	64.07	63.70	63.33	62.96
03-Oct-12	62.60	62.24	61.88	61.52	61.17	60.82	60.47	60.12	59.77	59.42	59.08	58.74	58.40	58.06
17-Oct-12	57.73	57.40	57.07	56.74	56.41	56.08	55.76	55.44	55.12	54.80	54.48	54.17	53.86	53.55
31-Oct-12	53.24	52.93	52.62	52.32	52.02	51.72	51.42	51.12	50.83	50.54	50.24	49.95	49.67	49.38
14-Nov-12	49.09	48.81	48.53	48.25	47.97	47.69	47.42	47.15	46.87	46.60	46.33	46.07	45.80	45.54
28-Nov-12	45.27	45.01	44.75	44.49	44.24	43.98	43.73	43.48	43.23	42.98	42.73	42.48	42.24	41.99
12-Dec-12	41.75	41.51	41.27	41.03	40.79	40.56	40.33	40.09	39.86	39.63	39.40	39.18	38.95	38.72
26-Dec-12	38.50	38.28	38.06	37.84	37.62	37.40	37.19	36.97	36.76	36.55	36.34	36.13	35.92	35.71
09-Jan-13	35.50	35.30	35.10	34.89	34.69	34.49	34.29	34.10	33.90	33.70	33.51	33.32	33.12	32.93
23-Jan-13	32.74	32.55	32.37	32.18	31.99	31.81	31.62	31.44	31.26	31.08	30.90	30.72	30.55	30.37
06-Feb-13	30.19	30.02	29.85	29.67	29.50	29.33	29.16	29.00	28.83	28.66	28.50	28.33	28.17	28.01
20-Feb-13	27.84	27.68												

HASS Pictures:

Holder

Special Form

Certificate For Sealed Radioactive Source

Size Control (Gauge)	Accepted
Visual Inspection	Accepted
Free of Surface Contamination	Accepted

We certify that the source is In compliance with the following norms:
NF ISO 9978 (1992)
ISO 2919 (1999) and
NF M61002 (1984)

Andrews House, Princess Way
Low Prudhoe Industrial Estate, Prudhoe
Northumberland, NE42 6HB, UK

T: +44 (0)1661 836 886 F: +44 (0)1661 836 866 E: sales@gilligan-engineering.co.uk

Company: **SPEC**

Source Serial: **AK794** Capsule Type: **IR-192-G6**

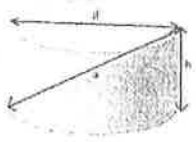
Half Life (days): **73.83** ISO: **99/C 64545**

Isotope: **Iridium 192** Special Form: **B/012/S-96**

On Holder:

Isotope Manufactured by:NTP RADIOISOTOPES (EUROPE) S.A., ZONING INDUSTRIAL, B6220, FLEURUS, BELGIUM,

Physical Size: **2 x 0.99 mm Cylindrical**



Diameter: 2mm
Height: 0.99mm

Active Dimension: 2.23mm

Decay Table (Ci)

	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon
29-Sep-15	1.57	1.55	1.54	1.53	1.51	1.50	1.48	1.47	1.46	1.44	1.43	1.42	1.40	1.39
13-Oct-15	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.26	1.25	1.24	1.23	1.22
27-Oct-15	1.21	1.20	1.18	1.17	1.16	1.15	1.14	1.13	1.12	1.11	1.10	1.09	1.08	1.07
10-Nov-15	1.06	1.05	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.95	0.94
24-Nov-15	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.86	0.85	0.84	0.84	0.83	0.82
08-Dec-15	0.81	0.81	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.75	0.74	0.73	0.73	0.72
22-Dec-15	0.71	0.71	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.66	0.65	0.64	0.64	0.63
05-Jan-16	0.63	0.62	0.61	0.61	0.60	0.60	0.59	0.59	0.58	0.57	0.57	0.56	0.56	0.55
19-Jan-16	0.55	0.54	0.54	0.53	0.53	0.52	0.52	0.51	0.51	0.50	0.50	0.49	0.49	0.49
02-Feb-16	0.48	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.45	0.44	0.44	0.43	0.43	0.43
16-Feb-16	0.42	0.42	0.41	0.41	0.41	0.40	0.40	0.39	0.39	0.39	0.38	0.38	0.38	0.37
01-Mar-16	0.37	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.34	0.34	0.34	0.33	0.33	0.33
15-Mar-16	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.29	0.29	0.29
29-Mar-16	0.28	0.28	0.28	0.28	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.25	0.25
12-Apr-16	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.22	0.22	0.22
26-Apr-16	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.19
10-May-16	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17
24-May-16	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
07-Jun-16	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13
21-Jun-16	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11
05-Jul-16	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
19-Jul-16	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
02-Aug-16	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
16-Aug-16	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
30-Aug-16	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
13-Sep-16	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05
27-Sep-16	0.05	0.05												

HASS Pictures:

Certificate For Sealed Radioactive Source

Reason for test:	Manufacturer's Test
Test method:	Immersion Test
Size Control (Gauge)	Accepted
Visual Inspection	Accepted
Free of Surface Contamination	Accepted

Responsible for Quality Control

Date of Test: 09-Dec-14

We certify that the aformentioned source is in

Holder

Special Form

Andrews House, Princess Way
Low Prudhoe Industrial Estate, Prudhoe
Northumberland, NE42 6HB, UK

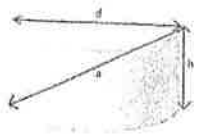
T: +44 (0)1661 836 886 F: +44 (0)1661 836 866 E: sales@gilligan-engineering.co.uk

Company:	**SPEC**		
Source Serial:	**HAA677**	Capsule Type:	**HA**
Half Life (days):	**73.83**	ISO:	**C64344**
Isotope:	**Iridium 192**	Special Form:	**PL/0017/S-05**
On Holder:	**PL-843**		

Isotope Manufactured by:NATIONAL CENTRE FOR NUCLEAR RESEARCH, RADIOISOTOPE CENTRE POLATOM, 7 ANDRZEJA SOLTANA STR., 05-400 OTWOCK, POLAND,

Physical Size: **1.5 x 1 mm Cylindrical**

Diameter: 1.5mm
Height: 1mm



Active Dimension: 1.8mm

Decay Table (GBq)

	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
19-Feb-16	21.47	21.27	21.07	20.87	20.68	20.48	20.29	20.10	19.92	19.73	19.54	19.36	19.18	19.00
04-Mar-16	18.82	18.65	18.47	18.30	18.13	17.96	17.79	17.63	17.46	17.30	17.14	16.98	16.82	16.66
18-Mar-16	16.51	16.35	16.20	16.05	15.90	15.75	15.60	15.46	15.31	15.17	15.03	14.89	14.75	14.61
01-Apr-16	14.47	14.34	14.20	14.07	13.94	13.81	13.68	13.55	13.43	13.30	13.18	13.05	12.93	12.81
15-Apr-16	12.69	12.57	12.45	12.34	12.22	12.11	12.00	11.88	11.77	11.66	11.55	11.45	11.34	11.23
29-Apr-16	11.13	11.02	10.92	10.82	10.72	10.62	10.52	10.42	10.32	10.23	10.13	10.04	9.94	9.85
13-May-16	9.76	9.67	9.58	9.49	9.40	9.31	9.22	9.14	9.05	8.97	8.88	8.80	8.72	8.64
27-May-16	8.56	8.48	8.40	8.32	8.24	8.16	8.09	8.01	7.94	7.86	7.79	7.72	7.64	7.57
10-Jun-16	7.50	7.43	7.36	7.29	7.22	7.16	7.09	7.02	6.96	6.89	6.83	6.77	6.70	6.64
24-Jun-16	6.58	6.52	6.46	6.39	6.34	6.28	6.22	6.16	6.10	6.04	5.99	5.93	5.88	5.82
08-Jul-16	5.77	5.71	5.66	5.61	5.55	5.50	5.45	5.40	5.35	5.30	5.25	5.20	5.15	5.10
22-Jul-16	5.06	5.01	4.96	4.92	4.87	4.83	4.78	4.74	4.69	4.65	4.60	4.56	4.52	4.48
05-Aug-16	4.43	4.39	4.35	4.31	4.27	4.23	4.19	4.15	4.11	4.07	4.04	4.00	3.96	3.92
19-Aug-16	3.89	3.85	3.82	3.78	3.74	3.71	3.68	3.64	3.61	3.57	3.54	3.51	3.47	3.44
02-Sep-16	3.41	3.38	3.35	3.31	3.28	3.25	3.22	3.19	3.16	3.13	3.10	3.07	3.05	3.02
16-Sep-16	2.99	2.96	2.93	2.91	2.88	2.85	2.83	2.80	2.77	2.75	2.72	2.70	2.67	2.65
30-Sep-16	2.62	2.60	2.57	2.55	2.52	2.50	2.48	2.45	2.43	2.41	2.39	2.36	2.34	2.32
14-Oct-16	2.30	2.28	2.26	2.23	2.21	2.19	2.17	2.15	2.13	2.11	2.09	2.07	2.05	2.03
28-Oct-16	2.02	2.00	1.98	1.96	1.94	1.92	1.90	1.89	1.87	1.85	1.83	1.82	1.80	1.78
11-Nov-16	1.77	1.75	1.73	1.72	1.70	1.69	1.67	1.65	1.64	1.62	1.61	1.59	1.58	1.56
25-Nov-16	1.55	1.53	1.52	1.51	1.49	1.48	1.46	1.45	1.44	1.42	1.41	1.40	1.38	1.37
09-Dec-16	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25	1.24	1.23	1.21	1.20
23-Dec-16	1.19	1.18	1.17	1.16	1.15	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.06	1.05
06-Jan-17	1.04	1.03	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92
20-Jan-17	0.92	0.91	0.90	0.89	0.88	0.87	0.87	0.86	0.85	0.84	0.83	0.83	0.82	0.81
03-Feb-17	0.80	0.80	0.79	0.78	0.77	0.77	0.76	0.75	0.74	0.74	0.73	0.72	0.72	0.71
17-Feb-17	0.70	0.70												

HASS Pictures:

Certificate For Sealed Radioactive Source

Reason for test:	Manufacturer's Test
Test method:	Immersion Test
Sizo Control (Gauge)	Accepted
Visual Inspection	Accepted
Free of Surface Contamination	Accepted

Responsible for Quality Control

Manufacturers leak test certificate reference: DP2-1-102/0072/15

Date of Test: 27-Jan-15

We certify that the aformentioned source is in

Holder

Special Form

Andrews House, Princess Way
Low Prudhoe Industrial Estate, Prudhoe
Northumberland, NE42 6HB, UK

T: +44 (0)1661 836 886 F: +44 (0)1661 836 866 E: sales@gilligan-engineering.co.uk

Company:	**SPEC**		
Source Serial:	**92680B**	Capsule Type:	**X540/1**
Half Life (days):	**119.779**	ISO:	**E63434**
Isotope:	**Selenium 75**	Special Form:	**USA/0502/S-96**
On Holder:			

Isotope Manufactured by:HIGH TECH SOURCES, 28 CHURCH ROAD, ST. THOMAS, EXETER, United Kingdom, EX2 9AZ

Physical Size: **3.18 mm Sphere Spherica**

Diameter: 3.18mm
Height: 3.18mm

Active Dimension: 4.5mm

Decay Table (GBq)

	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
19-Feb-16	89.61	89.09	88.58	88.07	87.56	87.05	86.55	86.05	85.55	85.06	84.57	84.08	83.60	83.11
04-Mar-16	82.64	82.16	81.68	81.21	80.74	80.28	79.82	79.35	78.90	78.44	77.99	77.54	77.09	76.65
18-Mar-16	76.20	75.76	75.33	74.89	74.46	74.03	73.60	73.18	72.76	72.34	71.92	71.50	71.09	70.68
01-Apr-16	70.27	69.87	69.47	69.06	68.67	68.27	67.88	67.48	67.10	66.71	66.32	65.94	65.56	65.18
15-Apr-16	64.81	64.43	64.06	63.69	63.32	62.96	62.59	62.23	61.87	61.52	61.16	60.81	60.46	60.11
29-Apr-16	59.76	59.42	59.07	58.73	58.39	58.06	57.72	57.39	57.06	56.73	56.40	56.08	55.75	55.43
13-May-16	55.11	54.79	54.48	54.16	53.85	53.54	53.23	52.92	52.62	52.31	52.01	51.71	51.41	51.12
27-May-16	50.82	50.53	50.24	49.95	49.66	49.37	49.09	48.80	48.52	48.24	47.96	47.69	47.41	47.14
10-Jun-16	46.87	46.60	46.33	46.06	45.80	45.53	45.27	45.01	44.75	44.49	44.23	43.98	43.72	43.47
24-Jun-16	43.22	42.97	42.72	42.48	42.23	41.99	41.75	41.50	41.26	41.03	40.79	40.55	40.32	40.09
08-Jul-16	39.86	39.63	39.40	39.17	38.94	38.72	38.50	38.27	38.05	37.83	37.62	37.40	37.18	36.97
22-Jul-16	36.75	36.54	36.33	36.12	35.91	35.71	35.50	35.30	35.09	34.89	34.69	34.49	34.29	34.09
05-Aug-16	33.89	33.70	33.50	33.31	33.12	32.93	32.74	32.55	32.36	32.17	31.99	31.80	31.62	31.44
19-Aug-16	31.26	31.08	30.90	30.72	30.54	30.37	30.19	30.02	29.84	29.67	29.50	29.33	29.16	28.99
02-Sep-16	28.82	28.66	28.49	28.33	28.16	28.00	27.84	27.68	27.52	27.36	27.20	27.05	26.89	26.74
16-Sep-16	26.58	26.43	26.28	26.12	25.97	25.82	25.67	25.53	25.38	25.23	25.09	24.94	24.80	24.65
30-Sep-16	24.51	24.37	24.23	24.09	23.95	23.81	23.68	23.54	23.40	23.27	23.13	23.00	22.87	22.74
14-Oct-16	22.61	22.47	22.34	22.22	22.09	21.96	21.83	21.71	21.58	21.46	21.33	21.21	21.09	20.97
28-Oct-16	20.85	20.73	20.61	20.49	20.37	20.25	20.13	20.02	19.90	19.79	19.67	19.56	19.45	19.34
11-Nov-16	19.22	19.11	19.00	18.89	18.78	18.68	18.57	18.46	18.35	18.25	18.14	18.04	17.93	17.83
25-Nov-16	17.73	17.63	17.52	17.42	17.32	17.22	17.12	17.02	16.93	16.83	16.73	16.63	16.54	16.44
09-Dec-16	16.35	16.25	16.16	16.07	15.97	15.88	15.79	15.70	15.61	15.52	15.43	15.34	15.25	15.16
23-Dec-16	15.08	14.99	14.90	14.82	14.73	14.65	14.56	14.48	14.39	14.31	14.23	14.15	14.06	13.98
06-Jan-17	13.90	13.82	13.74	13.66	13.58	13.51	13.43	13.35	13.27	13.20	13.12	13.05	12.97	12.90
20-Jan-17	12.82	12.75	12.67	12.60	12.53	12.46	12.38	12.31	12.24	12.17	12.10	12.03	11.96	11.89
03-Feb-17	11.82	11.75	11.69	11.62	11.55	11.49	11.42	11.35	11.29	11.22	11.16	11.09	11.03	10.97
17-Feb-17	10.90	10.84												

HASS Pictures:

Certificate For Sealed Radioactive Source

Reason for test:	Manufacturer's Test	Responsible for Quality Control	
Test method:	Immersion Test	Manufacturers leak test certificate reference:	Date of Test:
Size Control (Gauge)	Accepted	278194	06-Aug-14
Visual Inspection	Accepted		
Free of Surface Contamination	Accepted	We certify that the aformentioned source is in	

Holder

Special Form

year	SPEC Sources Exported	Foreign Sources Imported	Foreign Imported Source Origins	Domestic manufactured sources returned	Total Sources Imported
2010	91	# being researched no records of decay graphs were kept identifying who/where the sources came from.	Belgium Poland Russia UK	???? no supporting decays to verify country of manufacture	???? no supporting decays to verify country of manufacture
2011	99	8	Belgium Poland Russia 7 UK 1	7 sources	15 sources
2012	35	61	Belgium 15 Poland 5 Russia 35 UK 6	108 sources	169 sources
2013	39	44		86 sources	130 sources
2014	28	28	Belgium 13 Poland 0 Russia 15 UK 0	12 sources	40 sources
2015	47	4	Belgium 4 Poland Russia UK	7 sources	11 sources
2016	182	38	Belgium 22 Poland 9 Russia 1 UK 6	41 sources	79 sources
2017	14		Belgium Poland Russia UK	N/A	N/A
Total	535 sources	183 sources		261 sources	444 sources

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JAMES P. SULLIVAN
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April 27, 2017

Peter Habighorst
Chief, Export Controls and Nonproliferation Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Source Production & Equipment Co., Inc.
Voluntary Self-Disclosure of Possible Violations
10 CFR Part 110

Dear Mr. Habighorst:

Reference is made to your letter of April 6, 2017 acknowledging the receipt by the U.S. Nuclear Regulatory Commission (NRC) of my letter of March 28, 2017 which conveyed to the NRC the Initial Voluntary Self-Disclosure submitted on behalf of Source Production & Equipment Co., Inc. (SPEC). The Initial Voluntary Self-Disclosure advised the NRC of apparent violations of the provisions of 10 CFR Part 110 concerning the importation of disused sealed sources of non-United States origin. In my letter, I requested that the NRC grant SPEC the opportunity to supplement the Initial Voluntary Self-Disclosure. Thank you. Your letter advised that supplemental information should be forwarded to the NRC for receipt on or before April 28, 2017. The following is the supplemental information as outlined in my letter. The representations made in this supplement to

SPEC's Initial Voluntary Self-Disclosure are made with the full knowledge and authorization of SPEC's Executive Management. I have enclosed a letter from R.D. Dicharry, President of SPEC, certifying the accuracy of the representations made in this Submission.

Nature and Circumstances of the Apparent Violations

SPEC was established in 1974 and is a leading supplier of radiography equipment and sources. SPEC is licensed by the NRC to export radioactive byproduct and source material. SPEC operates internationally under both General and Specific Licenses. SPEC also holds Radioactive Material License LA-2966-L01, expiration date August 31, 2021, issued by the State of Louisiana which includes the authorization to store radioactive waste and transfer the same for disposal.

On July 28, 2010, the NRC published a final rule in the Federal Register that amended several provisions of 10 CFR Part 110. The sealed source exclusion to the definition of "radioactive waste" was revised to confirm that the exclusion only applies to sources of "U.S. origin" being returned to an authorized domestic licensee. During the course of its business in international commerce, SPEC has, on numerous occasions, received from foreign entities disused sealed radioactive source material. On August 28, 2013, the NRC published a Branch Technical Position (BTP) in the Federal Register to provide guidance on the application of the exclusion of disused sealed sources of United States origin to the definition of "radioactive waste" (78 FR 53020). The BTP explained the circumstances that needed to be present in order for importation of a disused sealed source of unknown origin under the General License in 10 CFR 110.27. The BTP guidance emphasized that an Importer must undertake a

good faith effort to determine the origin of the disused sealed sources intended for importation. The BTP guidance further instructs that disused sources that originated in a country other than the United States would require a Specific License unless the disused sealed source was imported for disposal in a Resource Conservation and Recovery Act (RCRA) facility or for the purposes of recycling pursuant to a contract or business agreement.

Because the amendments to 10 CFR 110 concerning this issue impacted SPEC's business operations, SPEC actively participated with the Nuclear Energy Institute (NEI) in submitting comments to the NRC on the draft of the BTP. Comments were solicited by the NRC in two "Requests for Comment on the BTP on the Import of Non-U.S. Origin Radioactive Sources" published in the Federal Register. Kelley Richardt (Ms. Richardt), SPEC's Regulatory Affairs Manager, was SPEC's representative to the NEI in the drafting of comments forwarded by NEI to the NRC in response to the requests for comments. At all relevant times, Ms. Richardt was supervised by SPEC's then senior operational manager and Vice President, Kevin Schehr (Mr. Schehr). Ms. Richardt kept Mr. Schehr informed of the status of the guidance; and when published, the BTP's impact on SPEC's operations. Ms. Richardt advised Mr. Schehr that SPEC needed to ensure that procedures were in place to prevent the importation of non-United States origin disused sealed sources unless authorized under License issued by the NRC.

In 2007, Mr. Schehr assumed his senior managerial position with SPEC. In the years preceding Mr. Schehr's termination in July 2016 and for all of the relevant time frame herein, Mr. Schehr was responsible for all aspects of SPEC's operation, as SPEC's President and principal shareholder/owner, R. Donny Dicharry, had largely transitioned away from

the day-to-day oversight of SPEC. Subsequent to Mr. Schehr's termination, SPEC commenced an internal investigation, which revealed the conduct and actions reported to the NRC in this Voluntary Self-Disclosure. Because of concerns raised by Ms. Richardt that Mr. Schehr apparently disregarded the guidance, SPEC's internal investigation included a review of SPEC's activities relating to the receipt of disused sealed sources from foreign customers.

As a result of its internal investigation, SPEC determined that Mr. Schehr was aware of the BTP's guidance regarding the origin of imported disused sealed sources. SPEC's internal investigation revealed that between 2012 and 2017, SPEC received 155 disused sealed sources of non-United States origin. Please note that SPEC's Initial Voluntary Self-Disclosure reported the receipt of 183 disused sealed sources of non-United States origin during the relevant time period. The correct number is 155. The discrepancy resulted from the initial counting duplicating 18 of the disused sealed sources of non-United States origin. All of the foreign origin disused sealed sources were shipped to SPEC by SPEC's authorized distributor in the United Kingdom, Gilligan Engineering Services of Prudhoe, Northumberland, United Kingdom. SPEC's internal investigation has found no evidence that good faith efforts were made to determine the origin of the imported disused sealed sources before the importation of these disused sealed sources occurred. In fact, the foreign origin of the disused sealed sources was clearly stated on the Decay Tables prepared by Gilligan Engineering Services that accompanied each shipment. The involved disused sealed sources are Iridium-192 (Ir-192), Selenium-75 (Se-75), Cobalt-60 (CO-60), and Ytterbium-169 (Yb-169). None of the aforementioned non-

USA disused sealed sources were imported for disposal in a RCRA facility or for the purposes of recycling pursuant to a contract or business agreement.

Documentation Relating to the Involved Importations

As stated above, all non-United States origin disused sealed sources were received by SPEC from Gilligan Engineering Services. Gilligan Engineering Services included in the documents provided to SPEC for the importation of the sealed disused sources, Decay Tables that identified the isotope; the manufacturer of the isotope; the isotope's radioactivity status; and other information regarding the isotope. The Decay Tables project the decay of the isotope during the year following receipt of the disused sealed source by SPEC. I have enclosed with this Submission, as Exhibit A, a copy of a representative shipment. I have also enclosed, as Collective Exhibit B, copies of the Decay Tables documenting the non-United States origin disused sealed sources received by SPEC from Gilligan Engineering Services; all of which are being stored at SPEC.

Corrective Action

SPEC has taken the following corrective action:

1) SPEC has notified its sealed source customers located outside of the United States that SPEC will not accept for importation non-United States origin disused sealed sources; and that United States origin disused sealed sources will only be accepted on a one-for-one exchange with a new sealed source exported by SPEC to the customer. A copy of SPEC's notification to its customers is enclosed as Exhibit C.

2) SPEC revised its internal Work Instructions to clearly reflect the NRC's policy on the importation of non-United States origin disused sealed sources.

3) SPEC has conducted training of its shipping and receiving personnel to ensure compliance with the NRC's policy on the importation of non-United States origin disused sealed sources. Copies of SPEC's internal training records are enclosed as Exhibit D.

4) SPEC Senior Management has re-emphasized to all SPEC personnel that concerns as to compliance with the NRC and other Regulatory Agencies' Rules and Regulations should be promptly brought to the attention of Senior Management.

5) SPEC determined to voluntary disclose this apparent non-compliance to the NRC and retained the undersigned Counsel to assist in this endeavor.

Mitigating Factors

The NRC is tasked with enforcing laws and regulations promulgated to ensure adequate protection of public health, public safety and the environment. Businesses and individuals operating in the nuclear industry must recognize the importance of compliance with NRC rules and regulations; and must promptly identify non-compliant activities and take corrective action. This obligation exists even in circumstances when the infraction has no manifest, or relatively inappreciable, potential safety or security consequences. SPEC recognizes this obligation and has demonstrated through this Voluntary Self-Disclosure and corrective action, SPEC's commitment to compliance.

In the review of the matters disclosed herein, SPEC requests that the NRC consider a number of mitigating factors as set out below. SPEC suggests that this matter should be disposed of as a non-cited violation of limited severity not requiring the imposition of a monetary penalty or other adverse enforcement action against SPEC.

1) SPEC identified and voluntary disclosed the apparent violations to the NRC. This Voluntary Self-Disclosure is submitted to the NRC with the authorization and support of SPEC Senior Management.

2) SPEC enjoys an excellent reputation. The operational failures which caused the concerns raised herein occurred under the supervision and apparent direction of Mr. Schehr, who SPEC since has terminated.

3) SPEC has taken corrective actions that will ensure compliance with NRC regulations regarding the importation of disused sealed sources.

4) Other than the matters disclosed herein, SPEC is in compliance with all its obligations under regulations promulgated by the NRC and the State of Louisiana.

5) The failure by SPEC to properly import non-United States disused sealed sources did not result in risk to the public health, public safety or the environment. At all times, SPEC complied with the obligations imposed by the State of Louisiana as to the storage and disposal of disused sealed sources regardless of origin.

6) SPEC is committed to compliance. SPEC maintains an internal compliance program and continually strives to improve its program. SPEC's Regulatory Affairs Manager conducts training of all employees and updates SPEC Senior Management and employees on changes to regulations that impact SPEC's operation. SPEC Senior Management encourages employees to understand and comply with NRC and other regulations; and bring to Senior Management's attention any questions or concerns as to compliance.

Summary

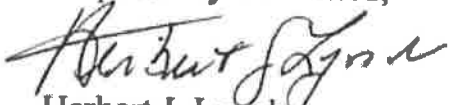
SPEC takes pride in the Company's over forty-year history of compliance with its regulatory obligations. SPEC regrets the apparent failure to adhere to NRC requirements concerning the importation of disused sealed sources. SPEC and its undersigned Counsel will fully cooperate with the NRC's review of this matter. SPEC is confident that the corrective

actions promptly taken by SPEC upon the discovery of the apparent violations will ensure compliance.

Enclosures

cc: R. D. Dicharry

Respectfully submitted,



Herbert J. Lynch
Counsel to Source Production
and Equipment Co., Inc.

Email: lynch@S-L.com

spec
SOURCE OF QUALITY

Peter Habighorst
Chief, Export Controls and Nonproliferation Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Source Production & Equipment Co., Inc.
Voluntary Self-Disclosure of Possible Violations
10 CFR Part 110

Dear Mr. Habighorst:

This letter accompanies the Supplement to the Initial Voluntary Self-Disclosure filed with the U.S. Nuclear Regulatory Commission (NRC) on behalf of Source Production & Equipment Co., Inc. (hereinafter SPEC) by Attorney Herbert J. Lynch. I hereby certify that Attorney Lynch is authorized by SPEC to make the aforementioned Voluntary Self-Disclosure. I further certify that the representations made in connection with the Supplement to the Initial Voluntary Self-Disclosure are true and correct to the best of my knowledge and belief. Please be advised that SPEC is committed to fully cooperating with the NRC it its review of the matters addressed in the Initial Voluntary Self-Disclosure.

Sincerely yours,

Source Production & Equipment Co., Inc.

R.D. Dicharry
President

Source Production & Equipment Co., Inc.
113 Teal Street St. Rose, LA 70087-9691 Phone 504/464-9471 FAX 504/467-7685 Website: www.spec150.com

From:	Mitchell, Megan P.
To:	Jones, Andrea
Cc:	Donny Dicharry; Mike Sanchez; Sandra Kusy; Habighorst, Peter; Holiday, Sophie; Perlowski, Henry M.; kelley@spec150.com; Hair, Christopher; Freeman, Stanley
Subject:	[External_Sender] RE: Clean Public Document with Corrective Actions
Date:	Monday, November 05, 2018 12:23:27 PM

Andrea,

Yes, the October 12 submission that you attached to your email below may be categorized as a public document.

Thanks,

Megan

Megan Poitevint Mitchell
Attorney | Arnall Golden Gregory LLP
171 17th Street NW, Suite 2100
Atlanta, GA 30363
p: 404-873-8164
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megan.mitchell@agg.com| LinkedIn profile |Bio

From: Jones, Andrea [mailto:Andrea.Jones2@nrc.gov]
Sent: Monday, November 05, 2018 10:17 AM
To: Mitchell, Megan P. <Megan.Mitchell@agg.com>
Cc: Donny Dicharry <donny@spec150.com>; Mike Sanchez <accounting@spec150.com>; Sandra Kusy <smkusy@spec150.com>; Habighorst, Peter <Peter.Habighorst@nrc.gov>; Holiday, Sophie <Sophie.Holiday@nrc.gov>; Perlowski, Henry M. <Henry.Perlowski@AGG.com>; kelley@spec150.com; Hair, Christopher <Christopher.Hair@nrc.gov>; Freeman, Stanley <Stanley.Freeman@nrc.gov>
Subject: Clean Public Document with Corrective Actions

Good Morning Megan,

We have blocked out references to “confidential” and “security-related information”, in the information that you submitted on October 12, 2018.

May I asked that you please take a review again of this document, before we place this in NRC’s public document system. The NRC will refer to this document in the final enforcement action. If no other headers exist, noting this is confidential or security-related, please confirm again that this may now be categorized as public document.

Thanks
Andrea

Note:
This message and any attachments from the law firm Arnall Golden Gregory LLP may contain CONFIDENTIAL and legally protected

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