



**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
EMERGENCY AND RADIOLOGICAL SERVICES DIVISION  
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 Source Production & Equipment Company, Inc. 113 Teal Street St. Rose, Louisiana 70087-9691  Attention: R. D. Donny Dicharry Radiation Safety Officer	LICENSE NUMBER <b>LA-2966-L01</b>	EXPIRATION DATE <b>August 31, 2012</b>
	PREVIOUS AMENDMENTS ARE VOID AMENDMENT NUMBER <b>57</b>	AI NUMBER <b>38844</b>
	THIS LICENSE ISSUED PURSUANT TO AND IN ACCORDANCE WITH <b>Departmental Action</b>  SIGNED BY: _____ DATE: <b>August 7, 2009</b>	

RADIOISOTOPE		MAXIMUM NUMBER OF SOURCES	MAXIMUM ACTIVITY OR QUANTITY PER SOURCE*	SEALED SOURCE IDENTIFICATION CHEMICAL FORM—PHYSICAL STATE	STORAGE CONTAINER OR EXPOSURE DEVICE	AUTHORIZED USE
ELEMENT	MASS NO.					

Any	Any	Total	500 mCi	Sealed Sources		Calibration Standards and Survey Meter Check Sources
Any	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		
Am	241	Any	30 mCi	IPL Model XFB-3** AEA Models AMCL or AMC.P4		
Co	60	Any	300 Ci	IPL Model XFB-4** Sealed Sources and Special Form		Distribution of Approved Industrial and Radiographic Sources

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Se	75	Total	10,000 Ci	Sealed Sources, Unsealed Pellets and Special Form	Research and Development & Distribution of Approved Sealed Sources
Sc	46	Total	1 Ci	Sealed Sources, Unsealed Pellets and Special Form	Sources only as impurities in the encapsulation
Sc	47				
Sc	48				
Ta	182				
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

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

\* 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 or at 113 Teal Street, St. Rose, Louisiana; 70087 (AI No. 38844):

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.

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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.

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- 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 August 7, 2006.
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-U	C-1/ see SSDR for list of sources	Ir-192 Depleted Uranium	300 17 kg shielding	Specific
LA-0612-S-105-S	'G' Series	Co-60 Ir-192	110 240	Specific
LA-0612-S-106-S	"T" Series	Ir-192	140	Specific
LA-0612-S-109-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 Depleted Uranium	150 17 kg shielding	Specific
LA-0612-D-112-S	SPEC-300/ G Series	Co-60	300	Specific

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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-U	"R" Series	Ir-192 Co-60	100 100	Specific
LA-0612-S-803-U	C-1(A)	Ir-192	100	Specific
LA-0612-S-804-U	D-1	Ir-192	100	Specific
LA-0612-S-805-U	N-23	Ir-192	100	Specific
LA-0612-S-115-S	M-19	Ir-192	13	Specific
LA-0612-S-116S	M-31	Yb-169	.005	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.

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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.

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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:BJJ