

APPROVED BY OMB: NO. 3150-0018 EXPIRES: 07/31/2003
 Estimated burden per response to comply with this mandatory collection request: 15 minutes. This notification is required so that NRC may schedule inspection of the activities to ensure that they are conducted in accordance with requirements for protection of the public health and safety. Send comments regarding burden estimate to the Record Management Branch (T-4 EB), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to br1@nrc.gov and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10202, (3150-0018), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

REPORT OF PROPOSED ACTIVITIES IN NON-AGREEMENT STATES, AREAS OF EXCLUSIVE FEDERAL JURISDICTION, OR OFFSHORE WATERS

(Please read the instructions before completing this form)

1. NAME OF LICENSEE (Person or firm proposing to conduct the activities described below) Lixi, Inc.		2. TYPE OF REPORT <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> REVISION <input type="checkbox"/> CLARIFICATION	
3. ADDRESS OF LICENSEE (Mailing address of other location where licensee may be located) 1438 Brook Drive Downers Grove, IL 60515		4. LICENSEE CONTACT AND TITLE Robert Savini, V.P., RSO	
		5. TELEPHONE NUMBER (include Area Code) 630-620-4646	6. FACSIMILE NUMBER (include Area Code) 630-620-7776

7. ACTIVITIES TO BE CONDUCTED UNDER THE GENERAL LICENSE GIVEN IN 10 CFR 150.20

WELL LOGGING LEAK TESTING AND/OR CALIBRATIONS TELETHERAPY/IRRADIATOR SERVICE

PORTABLE GAUGES OTHER (Specify) ⇒ Sales Demonstration

RADIOGRAPHY ⇒ REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NUMBERS)

8. CLIENT NAME, ADDRESS, CITY/COUNTY, STATE, ZIP CODE Hemlock Semiconductor 12334 Geddes Road Hemlock, MI 48626		9. ACTUAL PHYSICAL ADDRESS OF WORK LOCATION (Street and Number or other location. Give as complete an address or directions as possible.) SAME as Item 8	
10. CLIENT TELEPHONE NUMBER (include Area Code) 517-642-5201		11. WORK LOCATION TELEPHONE NUMBER (include Area Code) 517-642-5201	

12. DATES SCHEDULED		13. NUMBER OF WORK DAYS	14. ADD	15. DELETE	16. LOCATION REFERENCE NUMBER
FROM	TO				NUMBER TO BE ASSIGNED BY NRC
3/26/03	3/26/03	1			000545

LIST ADDITIONAL WORK SITES ON SEPARATE SHEET(S) TO INCLUDE ALL INFORMATION CONTAINED IN ITEMS 8-16 ABOVE.

17. LIST RADIOACTIVE MATERIAL, WHICH WILL BE POSSESSED, USED, INSTALLED, SERVICED, OR TESTED (Include description of type and quantity of radioactive material, sealed sources, or devices to be used.)
Gd-153, 1 Curie, in Lixi Source Holder, for use with LS-82X Device.

18. AGREEMENT STATE SPECIFIC LICENSE WHICH AUTHORIZES THE UNDERSIGNED TO CONDUCT ACTIVITIES WHICH ARE THE SAME, EXCEPT FOR LOCATION OF USE, AS SPECIFIED IN ITEM 8 ABOVE. (Four copies of the specific license must accompany the Initial NRC Form 241.)	LICENSE NUMBER IL-01339-01	STATE IL	EXPIRATION DATE January 31, 2004
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19. CERTIFICATION (MUST BE COMPLETED BY APPLICANT)

I, THE UNDERSIGNED, HEREBY CERTIFY THAT:

- All information in this report is true and complete.
- I have read and understand the provision of the general license 10 CFR 150.20 reprinted on the instructions of this form; and I understand that I am required to comply with these provisions as to all byproduct, source, or special nuclear material which I possess and use in non-Agreement States or offshore waters under the general license for which this report is filed with the U.S. Nuclear Regulatory Commission.
- I understand that activities, including storage, conducted in non-Agreement States under general license 10 CFR 150.20 are limited to a total of 180 days in calendar year, with the exception of work conducted in off-shore waters, which is authorized for an unlimited period of time in the calendar year.
- I understand that I may be inspected by NRC at the above listed work site locations and at the Licensee home office address for activities performed in non-Agreement States or offshore waters.
- I understand that conduct of any activities not described above, including conduct of activities on dates or locations different from those described above or without NRC authorization, may subject me to enforcement action, including civil or criminal penalties.

CERTIFYING OFFICER - RSO or Management Representative (Name and Title) Robert Savini, V.P., RSO	SIGNATURE <i>Robert Savini</i>	DATE 3/20/03
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WARNING: False statements in this certificate may be subject to civil and/or criminal penalties. NRC regulations require that submissions to the NRC be complete and accurate in all material respects. 18 U.S.C. Section 1001 makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

FOR NRC USE ONLY	REVIEWING OFFICIAL (Typed/Printed Name and Title) Doris E. Gonzalez/NMPA	SIGNATURE <i>Doris E. Gonzalez</i>	DATE 3/21/03	TOTAL USAGE - DAYS TO DATE
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STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY**RADIOACTIVE MATERIAL LICENSE**DIVISION OF RADIOACTIVE MATERIALS
1035 OUTER PARK DRIVE
SPRINGFIELD, ILLINOIS 62704

Pursuant to the Illinois Radiation Protection Act and the rules and regulations in 32 Illinois Administrative Code promulgated thereunder, 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(s) listed herein; and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Illinois Department of Nuclear Safety now or hereafter in effect and to any conditions specified in the license. This document confirms that the licensee has registered the sources of radiation listed below in accordance with Section 2 of the Radiation Installations Act.

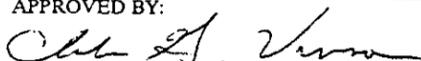
LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Lixi, Inc. 1438 Brook Drive Downers Grove, IL 60515	IL-01339-01	January 31, 2004
	AMENDMENT NUMBER	
	5	

Attention: Robert Savini
Executive Vice President

In accordance with application dated December 28, 1998, License Number IL-01339-01 is amended in its entirety. Previous amendments are void.

ITEM	RADIONUCLIDE	CHEMICAL and/or PHYSICAL FORM	MAXIMUM ACTIVITY* PER SOURCE	MAXIMUM POSSESSION LIMIT
A.	Any byproduct radionuclide with Atomic Number 3-83, inclusive, excluding Am-241	Sealed Sources	1.0 Ci	5 Ci
B.	Any NARM radionuclide with Atomic Number 3-83, inclusive	Sealed Sources	1 Ci	5 Ci
C.	Am-241	Sealed Sources	500 mCi	5 Ci
D.	Cf-252	Any commercially available sealed source evaluated by the U.S. NRC, an Agreement State, or a Licensing State	2.7 mCi	2.7 mCi

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY
RADIOACTIVE MATERIAL LICENSE

<u>LICENSEE</u> Lixi, Inc.	<u>LICENSE NUMBER</u> IL-01339-01	<u>AMENDMENT NUMBER</u> 5	<u>EXPIRATION DATE</u> January 31, 2004
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ITEM	RADIONUCLIDE	CHEMICAL and/or PHYSICAL FORM	MAXIMUM ACTIVITY* PER SOURCE	MAXIMUM POSSESSION LIMIT
E.	Se-75	Any commercially available sealed source evaluated by the U.S. NRC, an Agreement State, or a Licensing State	10 Ci	10 Ci
F.	Any radionuclide, excluding Am-241	Any commercially available calibration or reference source evaluated by the U.S. NRC, an Agreement State, or a Licensing State	5 mCi	5 Ci
G.	I-125	Sealed Source - Amersham Model IMC.P2, Nordion Model C-324	650 mCi	Any; No single source to exceed 500 mCi at the time of distribution
H.	Am-241	Sealed Source - Amersham Model AMC.17	375 mCi	5 Ci
I.	Gd-153	Sealed Source - Amersham Model C-381	1.1 Ci	Any; No single source to exceed 1.0 Ci at the time of distribution

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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DEPARTMENT OF NUCLEAR SAFETY
RADIOACTIVE MATERIAL LICENSE

<u>LICENSEE</u>	<u>LICENSE NUMBER</u>	<u>AMENDMENT NUMBER</u>	<u>EXPIRATION DATE</u>
Lixi, Inc.	IL-01339-01	5	January 31, 2004

AUTHORIZED USE:

- A. through E. and I. Research and development of imaging devices; calibration and testing of radiation detection, measurement, and imaging equipment.
- F. Calibration and testing of radiation detection, measurement, and imaging equipment.
- G., H., and I. For storage, use, and/or possession incident to:
- (1) Installation into or removal from source holder for Lixiscope Models LS-80-X, LS-82-X, LSM-80-X and LSM-82-X series devices.
 - (2) Repairing, servicing, testing, demonstrating, and training in Lixiscope device use and operation.
 - (3) Sealed source leak testing and radiation survey performance of Lixiscope devices and associated facilities.
 - (4) Picking up, packaging, and transferring of sealed sources received from customers for transfer to authorized recipients.
 - (5) Distribution to veterinarians, individuals authorized pursuant to 32 Ill. Adm. Code 335.6010 or equivalent regulations, and other persons authorized to receive the licensed material pursuant to the terms and conditions of specific licenses issued by the U.S. NRC or an Agreement State.

CONDITIONS

1. Radioactive material shall be used at the licensee's facilities located at 1438 Brook Drive, Downers Grove, Illinois and at temporary jobsites of the licensee in the State of Illinois in accordance with statements, representations and procedures listed in other conditions of this license.
2. A. Radioactive material, except for Item D., shall be used by, or under the supervision and in the physical presence of, Michael J. Garcia, Joseph E. Pascente, Robert J. Savini, Stan A. Huber, Jerome Howard, or any other paid employee or paid consultant designated by the Radiation Safety Officer who has completed the Lixi Radiation Safety Training Course or other applicable training in accordance with application dated December 28, 1998 and letter, with attachments, dated October 12, 2000. The licensee shall maintain training records of all designated users.

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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(Condition 2. continued)

- B. Radioactive material listed in Item D. may be used by, or under the supervision and in the physical presence of Robert J. Savini or Stan A. Huber.
3. The Radiation Safety Officer for this license is Robert J. Savini.
4. The Radiation Safety Officer may delegate certain duties to specified individuals provided that:
- A. The licensee maintain, for a period of 5 years, records of all individuals designated by the Radiation Safety Officer to perform duties or meet regulatory requirements that would otherwise be required as a duty of the Radiation Safety Officer. These records shall include:
1. The name of the individual;
 2. A list of all duties the Radiation Safety Officer's designee is authorized to perform;
 3. The date upon which the designation became effective;
 4. The signature of the Radiation Safety Officer's designee; and
 5. The signature of the Radiation Safety Officer.
- B. The Radiation Safety Officer shall review records generated by designees and the performance of designees quarterly. In addition, the licensee shall maintain for Departmental inspection for a period of 5 years, records of the quarterly reviews of records generated by designees and quarterly reviews of designee's performance. These records shall include:
1. The date of the review;
 2. The records being reviewed and the name of the designee being reviewed;
 3. A list of all duties performed by the designee;
 4. The results of the Radiation Safety Officer's review and any corrective measures taken, if applicable, based on the review; and
 5. The signature of the Radiation Safety Officer.

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5. A. Each sealed source shall be tested for leakage and/or contamination as specified in 32 Ill. Adm. Code 340.410.
- B. Each sealed source or device containing a sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer. If the inspection or test reveals any construction defects, contamination, or the escape of radon in excess of the levels specified in 32 Ill. Adm. Code 340.410(a)(5), (6) or (7), the source or device shall not be used or transferred until it has been repaired, decontaminated and retested, and the results documented.
- C. Tests for leakage and/or contamination performed by the licensee shall be performed in accordance with procedures described in the application dated December 28, 1998 and letter dated October 12, 2000. This license does not authorize this licensee to provide leakage and/or contamination tests as a customer service for other licensees.
- D. The records of tests for leakage and/or contamination shall contain the manufacturer, model and serial number, if assigned, of each source tested, the identity of each source radionuclide and its calculated activity as of the date of the test or the activity and activity assay date, the measured activity of each test sample expressed in Bq or μCi , the date the sample was collected, the date the sample was analyzed, the identity of the individual who collected the sample(s) and the identity of the individual who analyzed the sample(s).
6. The licensee shall not use radioactive material in or on humans or in applications where radioactive material is released to the environment except as provided otherwise by specific condition of this license.
7. Individuals who work in, or whose duties may require them to work in, areas where radioactive materials are used or stored, shall be instructed in the items specified in 32 Ill. Adm. Code 400.120 and the application dated December 28, 1998 and letter with attachments dated October 12, 2000, prior to performing duties in the area and at least annually thereafter. The licensee shall maintain records of initial and annual training for Departmental inspection for 5 years from the date on which the training was given.
8. The licensee shall conduct a physical inventory at intervals not to exceed three months to account for each sealed source received and possessed under the license. Inventory records shall be maintained and include the radionuclide, activity, activity assay date, manufacturer, model and serial number, the location of the sealed source, date of the inventory and the identity of the individual(s) performing the inventory. Records of inventories shall be maintained for five years from the date of each inventory.

* μCi -microcurie; mCi -millicurie; Ci -Curie; MBq -Megabecquerel; GBq -Gigabecquerel; TBq -Terabecquerel; g -gram; μg -microgram; kg -kilogram

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9. Any proposed change in primary packaging, product shielding, product labeling, or product instruction manual, which changes either exposure to handlers and users, or recommended uses of material, shall be submitted to the Department. Any other change to packaging, shielding, labeling, or product instruction manual shall be maintained by the licensee, and available for inspection by representatives of this Department.
10. This license does not authorize distribution to persons exempted from 32 Ill. Adm. Code 330 or licensed pursuant to 32 Ill. Adm. Code 330.30, 330.40, 330.210, or 330.220(b) or equivalent regulations of an Agreement State or the U.S. Nuclear Regulatory Commission.
11. At any time the licensee is engaged in making measurements by authority of this license at a temporary job site, the licensee shall have a current copy of each of the following documents available at the job site for inspection by the Department:
- A. The license, including all active amendments;
 - B. Manufacturer's instruction manual for the sealed sources and devices at the temporary job site;
 - C. The licensee's emergency procedures; and
 - D. The results of the latest test for leakage and/or contamination performed on the sealed source.
12. Radioactive material shall not be used in products distributed to the general public.
13. A. The licensee shall only distribute those sealed sources and/or devices for which a Sealed Source and Device Registry (SS&D) Evaluation Sheet has been issued by the Department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State. Sealed sources and/or devices must be manufactured and/or distributed in accordance with all statements and representations, including the description of the quality control program that provided the basis for issuance of the SS&D Evaluation Sheet. Prior to distribution, any changes in the design, production process, specifications of a product, sealed source, or device shall be approved by the Department.
- B. The licensee shall maintain an active and valid SS&D Evaluation Sheet for each product, sealed source or device which it distributes. The licensee may repair, maintain and service products, sealed sources or devices previously distributed which are part of an inactive SS&D evaluation issued to the licensee. However, the licensee may not continue to manufacture or distribute such products, sealed sources or devices.

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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(Condition 13. continued)

- C. These requirements shall not apply to the following:
- 1) Calibration and references sources not exceeding:
 - a. For beta/gamma emitting material, 3.7 MBq (100 uCi) or ten times the quantity specified in 32 Ill. Adm. Code 330. Appendix B, whichever is greater; or
 - b. For alpha emitting materials, 370 kBq (10 µCi).
 - 2) Sealed sources and devices distributed to Broad Scope licensees.
 - 3) Sealed sources and devices distributed to licensees authorized for "research and development" as defined in 32 Ill. Adm. Code 310.20 provided the licensee is authorized for the radionuclide and quantity in an unsealed or unshielded form.
- D. Sealed sources and devices as described in C(2) and (3) above shall not be subsequently distributed to secondary licensees.
14. In addition to the possession limits stated in License Schedule Items A., B. and F., the licensee shall further restrict the possession of licensed material to quantities not to exceed the applicable limits referenced in Appendix A to 32 Ill. Adm. Code 326. For combinations of nuclides, the licensee must maintain a record for Department inspection demonstrating for all possessed nuclides that the sum of the ratios of the quantity authorized and the limit established in Appendix A is not greater than one.

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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15. 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 statements, representations and procedures contained in, referenced in, or enclosed with the documents listed below. The regulations contained in 32 Ill. Adm. Code: Chapter II, Subchapters b and d shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations. The most recent statements, representations and procedures listed below shall govern if they conflict with previously submitted documents.

- A. Application dated December 28, 1998.
- B. Letters, with attachments, dated May 19, 2000 and October 12, 2000.
- C. Letters dated July 15, 2000 and December 27, 2000.
- D. Inspection and Enforcement letter dated November 12, 1999.

CGV:kjg

* uCi-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; ug-microgram; kg-kilogram

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