

APPROVED BY: NO. 3150-0013 EXPIRES: 07/31/2002  
 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 Records Management Branch (T-6 EB), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to brt1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0013), 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) <b>Standard Nuclear Consultants</b>		2. TYPE OF REPORT <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> REVISION <input type="checkbox"/> CLARIFICATION	
3. ADDRESS OF LICENSEE (Mailing address or other location where licensee may be located) <b>1 S 016 Donny Hill Road Elburn, IL 60119</b>		4. LICENSEE CONTACT AND TITLE <b>Jim Mikowski and Stan Buhr</b>	
		5. TELEPHONE NUMBER (Include Area Code) <b>(630) 365-5858</b>	6. FACSIMILE NUMBER (Include Area Code) <b>(315) 478-5419</b>

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) ⇒ \_\_\_\_\_

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

8. CLIENT NAME, ADDRESS, CITY/COUNTY, STATE, ZIP CODE <b>See attachment</b>	9. ACTUAL PHYSICAL ADDRESS OF WORK LOCATION (Street and Number or other location. Give as complete an address or directions as possible.) <b>See attachment</b>
10. CLIENT TELEPHONE NUMBER (Include Area Code)	11. WORK LOCATION TELEPHONE NUMBER (Include Area Code)

12. DATES SCHEDULED	13. NUMBER OF WORK DAYS	14. ADD	15. DELETE	16. LOCATION REFERENCE NUMBER
FROM TO <b>(See sites and dates listed on attached sheets)</b>				NUMBER TO BE ASSIGNED BY NRC <b>000251</b>

LIST ADDITIONAL WORK SITES ON SEPARATE SHEET(S) TO INCLUDE ALL INFORMATION CONTAINED IN ITEMS 9-16 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.)

**Sealed cal.sources, Cs-137:165 mCi, 100 mCi, 0.250 mCi, Ba-133:0.250 mCi**

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 9 ABOVE. (Four copies of the specific license must accompany the Initial NRC Form 241.)	LICENSE NUMBER <b>#IL-01300-01</b>	STATE <b>IL</b>	EXPIRATION DATE <b>8/30/03</b>
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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) <b>Stan Buhr Consultant</b>	SIGNATURE <i>Stan W. Buhr</i>	DATE <b>2/1/02</b>
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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) <b>Doris C. Gonzalez/NMPP</b>	SIGNATURE <i>Doris C. Gonzalez</i>	DATE <b>02/12/02</b>	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 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 Installation Act.

LICENSEE Standard Nuclear Consultants, Ltd. LICENSE NUMBER IL-01300-01 EXPIRATION DATE August 30, 2003

1S.016 Donny Hill Road  
Elburn, IL 60119

AMENDMENT NUMBER

7

Attention: James J. Mikowski  
Radiation Safety Officer

In accordance with application dated August 1, 1998, License Number IL-01300-01 is renewed in its entirety. Previous amendments are void.

ITEM	RADIONUCLIDE	CHEMICAL and/or PHYSICAL FORM	MAXIMUM ACTIVITY (LIMIT) PER SOURCE	MAXIMUM POSSESSION LIMIT
A.	Cs-137	Sealed Source - J.L. Shepherd Model 6810 or NEN Model NER-401H	100 mCi	200 mCi
B.	Cs-137	Sealed Source - Technical Operations Model 77032	165 mCi	165 mCi
C.	Gd-153	Sealed Source - Amersham Model GDC.CY1 or DuPont Model NER-430	1.3 Ci	2 Ci
D.	Tc-99m	Mo-99/Tc-99m generator eluate in sealed vials	50 mCi	Any
E.	Any radioactive material with atomic numbers 1 - 83, inclusive	Any sealed source manufactured and distributed by persons specifically approved by the Department, the Nuclear Regulatory Commission, an Agreement State, or a Licensing State	15 mCi	50 mCi
F.	Any radioactive material with atomic numbers above 83	Any sealed source manufactured and distributed by persons specifically approved by the Department, the Nuclear Regulatory Commission, an Agreement, State, or a licensing State	5 µCi	50 µCi

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

APPROVED BY:



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Charles G. Vinson, Head of Materials Licensing  
IL 473-0059

October 8, 1999

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STATE OF ILLINOIS  
DEPARTMENT OF NUCLEAR SAFETY  
RADIOACTIVE MATERIAL LICENSE

<u>ISEE</u>	<u>LICENSE NUMBER</u>	<u>AMENDMENT NUMBER</u>	<u>EXPIRATION DATE</u>
Standard Nuclear Consultants, Ltd.	IL-01300-01	7	August 30, 2003

ITEM	RADIONUCLIDE	CHEMICAL and/or PHYSICAL FORM	MAXIMUM ACTIVITY* PER SOURCE	MAXIMUM POSSESSION LIMIT
G.	Any	Any sealed source manufactured and distributed by persons specifically approved by the Department, the Nuclear Regulatory Commission, an Agreement State, or a Licensing State	1,500 mCi	15 Ci
H.	Any	Environmental, wipe, leak test or bioassay sample	Any	10 Ci
I.	Any, except as noted below	Any	Any	Any
J.	Special Nuclear Material	Any	Any	As per 32 Ill. Adm. Part 310.20

AUTHORIZED USE:

- A. For possession and use in a J.L. Shepherd Series 28 Calibrator for instrument calibration.
- B. For possession and use in a Victoreen Model 64-733 calibrator for instrument calibration.
- C. For storage only.
- D. through F. For possession and use as check, calibration, or reference sources.
- G. For use incident to operational checks, and surveys of gauges or devices in accordance with manufacturer's instructions/recommendations.
- H. For possession and use as contamination incidental to sample analysis.
- I. For use incidental to decontamination, decommissioning, surveying, packaging, and transfer.
- J. For possession as contamination incidental to sample analysis and, for use incidental to decontamination, decommissioning, surveying, packaging, and transfer.

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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CONDITIONS

1. A. Radioactive material shall be used at the licensee's facilities located at 1S.016 Donny Hill Road, Elburn, 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.
- B. Radioactive material listed in License Schedule Items C., D. and E. shall be stored only in the licensee's vehicle in accordance with letter dated August 27, 1998 and used at temporary jobsites of the licensee in areas not under exclusive Federal jurisdiction throughout the State of Illinois in accordance with statements, representations and procedures listed in other conditions of this license.
2. Radioactive material is authorized for use by, or under the supervision of, the following individuals for the materials and uses indicated:
 

Stanley W. Buhr	All
James J. Mikowski	All
3. The Radiation Safety Officer for this license is James J. Mikowski.
4. A. The licensee shall have radiation survey instrument(s) used to establish compliance with 32 Ill. Adm. Code calibrated by a person specifically authorized by the Department, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services. Records of radiation survey instrument calibrations shall be maintained for Department inspection.
- B. The licensee is authorized to perform radiation survey instrument calibrations in accordance with procedures described in the application dated August 1, 1998 and letter with attachments dated September 22, 1999. The licensee is authorized to perform radiation survey instrument calibrations as a service for other licensees.
5. Each radiation survey instrument calibration certificate shall include an appropriate scale correction factor each time the exposure rate indicated by the radiation survey instrument differs from the true exposure rate by more than plus or minus ten percent.
  - A. The licensee shall remove from service any radiation survey instrument which exhibits reference check source readings deviating by more than plus or minus 20 percent from the reference check source reading taken immediately after calibration.

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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(Condition 5. continued)

- B. The licensee shall check each radiation survey instrument with a dedicated check source on each day that the instrument is used. This check source shall have a half-life greater than five years. These checks shall be taken with the check source placed in a specific geometry relative to the detector. The results of these reference check source readings shall be recorded, at a minimum,
1. After repair, battery change, or radiation survey instrument calibration; and
  2. At intervals not to exceed three months.
- C. The licensee shall maintain records of radiation survey instrument reference check source readings which include, as a minimum:
1. The make, model and serial number of the radiation survey instrument;
  2. The check source radionuclide, activity and assay date;
  3. The position of the check source relative to the detector (geometry);
  4. The results and dates of readings taken; and
  5. The radiation survey instrument reading observed when using the check source immediately after the latest full radiation survey instrument calibration and the date of that observation.
6. A. Each sealed source possessed under this license shall be tested for leakage and/or contamination as specified in 32 Ill. Adm. Code 340.410. Tests for leakage and/or contamination shall be performed by persons specifically licensed to provide such services.
- B. Tests for leakage and/or contamination performed by the licensee shall be performed in accordance with procedures described in application dated August 1, 1998 and letter with attachments dated September 22, 1999.

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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7. Sealed source leakage or contamination tests provided as a service shall be conducted in accordance with 32 Ill. Adm. Code 340.410 and the following:
- A. The conditions of pertinent Department, Agreement State, Licensing State and U.S. Nuclear Regulatory Commission licenses authorizing the customer's use and possession of the radioactive material; or
  - B. The procedures described in the application submitted by the licensee, dated August 1, 1998 and letter with attachments dated September 22, 1999.
  - C. Sealed source leak test certificates shall identify: the manufacturer, model and serial number, if assigned, of each source tested, the identity of each source radionuclide, the results for each test sample expressed in Bq or mCi, the date the sample was collected, the date the sample was analyzed, and the identity of the individual who analyzed the sample(s).
8. Sealed source leakage or contamination tests provided as a customer service shall be conducted in accordance with 32 Ill. Adm. Code 340.410 and the following:
- A. The conditions of pertinent Department, Agreement State, Licensing State and U.S. Nuclear Regulatory Commission licenses authorizing the customer's use and possession of the radioactive material; or
  - B. The procedures described in the application submitted by the licensee, dated application dated August 1, 1998 and letter with attachments dated September 22, 1999.
9. Sealed source leak test certificates shall identify:
- A. The radionuclide, calculated activity as of the date of the test or the activity and activity assay date, manufacturer, model and serial number of each sealed source tested;
  - B. The date of sample collection;
  - C. The name of the individual who collected the sample;
  - D. The date of sample analysis;
  - E. The name of the individual who performed the leak test sample analysis; and
  - F. The results of each test in units of Bq or  $\mu$ Ci.

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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10. Sealed sources containing radioactive material shall not be opened.
11. A. The licensee is authorized to perform initial radiation surveys and operability checks including leak testing, remove from service and relocate devices containing radioactive material which are approved for distribution and use by an Agreement State, Licensing State or the U.S. Nuclear Regulatory Commission.
- B. The licensee is not authorized to install, repair, modify, dismantle or affect any change in devices containing radioactive material nor is the licensee authorized to modify or alter labels affixed to devices by the manufacturer in accordance with the license authorizing manufacture of the device, except where a change in the leak test interval for the gauge has been authorized or when a generally licensed gauge is converted to a specifically licensed status.
12. The licensee shall perform initial radiation surveys, shutter checks, leak testing, removal and relocation of devices containing radioactive material in accordance with the instructions contained in the manufacturer's instruction or operation manual for the gauge.
- The licensee shall conduct a physical inventory at intervals not to exceed six months to account for each sealed source received and possessed under the license and shall maintain a record of such inventories. The inventory records shall 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.
14. Except as otherwise specified in the license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for each device authorized by this license.
15. At any time the licensee is engaged in activities 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

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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(Condition 15. continued)

- D. The results of the latest test for leakage and/or contamination performed on the sealed source.
16. The licensee is authorized to store waste containing, or comprised of, radioactive material with a physical half-life of less than 90 days for "decay-in-storage" before disposal with the following provisions:
- A. Radioactive waste to be disposed of shall be held for decay a minimum of ten half-lives.
- B. Pursuant to 32 Ill. Adm. Code 340.510(a) and (b), radiation surveys shall be performed prior to disposal of the waste to ensure that the waste's radioactivity cannot be distinguished from background radiation levels. The package/container surface shall be surveyed with a radiation detection survey instrument set on its most sensitive scale, with no interposed shielding between the detector and the waste, in a low background radiation environment. Records of monitoring, which include: date of disposal, date placed in storage, specific survey instrument used, background radiation levels, measured radiation levels, and identity of the individual performing the surveys, shall be maintained. All radiation labels shall be removed or obliterated.
- C. Nothing in this condition relieves the licensee from complying with other applicable federal, state, and local regulations governing any other toxic or hazardous property of these materials.
17. In addition to the possession limits stated in items A. B., C. through E., G. and I., the licensee shall further restrict the possession of unsealed licensed material or dispersible source material to quantities less than 1000 times the applicable limits referenced in Appendix C to 10 CFR 20. Radioactive material in sealed or non-dispersible form shall not exceed 1E+10 times the applicable limits referenced in Appendix C to 10 CFR 20.
18. Notwithstanding the requirements in other conditions of the license, the licensee is only required to monitor occupational doses as specified in 32 Ill. Adm. Code 340.520.

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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19. 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 August 1, 1998.
- B. Letter, with attachments, dated September 22, 1999.
- C. Letter dated August 27, 1998.

CGV:DMP:kjg

\*  $\mu$ Ci-microcurie; mCi-millicurie; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram;  $\mu$ g-microgram; kg-kilogram

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