U.S. Department
of Transportation
Federal Highway Administration

Research, Development, and Technology

Turner-Fairbank Highway
Research Center
6300 Georgetown Pike
McLean, Virginia 22101-2296

May 19, 2005

U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406-1415
ATTN: Kathy Doice Modes

P-3
MS-16

RE: License No. 45-23090-01
Docket No. 03028770
Control No. 136643

SUBJECT: U.S. Department of Transportation, Response to Request for Additional Information for the review of our Application for Amendment to License

Dear Ms. Modes:

In reply to your letter of April 18, 2005 requesting additional information for the review of our Application for Amendment to License document, please see the three attachments.

To clarify the request in our March 3, 2005 letter we would like to name Mr. Dennis Sixbey as the new RSO. Also please note that the new Certifying Officer is Dr. Steve Chase, Acting Director for the Office of Infrastructure R&D.

Lastly, we wish to revoke License Condition 15 of our existing license. Commercial gauges will be shipped to the manufacturer for non-routine maintenance and repair.

If you have any questions concerning this reply, Mr. Dennis Sixbey, our current RSO, can be reached by phone at 202-493-3078 or E-mail at dennis.sixbey@fhwa.dot.gov.

Sincerely yours,

for Dr. Steve Chase
Acting Director, Office of Infrastructure
Research and Development

Attachments (3)
NRC Form 313
NUREG-1556, Volume 1, Revision 1, Appendix B
TFHRC Inventory of Commercial Gauges and Radioisotope Sources

136643
NMSS/RGN1 MATERIALS-002

NRC FORM 313 (4-2004) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2005

Estimated burden per response to comply with this mandatory collection request: 7 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-6 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U S NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-4005

03028770

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- [ ] A. NEW LICENSE
- [X] B. AMENDMENT TO LICENSE NUMBER 45-23090-01
- [ ] C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

DEPARTMENT of TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF INFRASTRUCTURE R&D (HRDI-11)
6300 GEORGETOWN PIKE
McLEAN, VA 22101-2296

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

STORED AND PRINCIPALLY USED AT TURNER-FAIRBANK HIGHWAY RESEARCH CENTER, 6300 GEORGETOWN PIKE, McLEAN, VA 22101-2296. ALSO USED AT UNSPECIFIED JOB SITES THROUGHOUT THE U.S. (IN STATES SUBJECT TO NRC's REGULATORY AUTHORITY (and IN AGREEMENT STATES)

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

DENNIS G. SIXBEY

TELEPHONE NUMBER

(202) 493-3078
(202) 493-3086 (fax)

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9. FACILITIES AND EQUIPMENT

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY AMOUNT ENCLOSED $

13. CERTIFICATION (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE

DR. STEVE CHASE, ACTING DIRECTOR, OFFICE OF INFRASTRUCTURE R&D

SIGNATURE

DATE 5/18/05

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		

APPROVED BY DATE

136643

NRC FORM 313 (4-2004) PRINTED ON RECYCLED PAPER

NMSS/RGNI MATERIALS-002

ITEMS 5 AND 6: MATERIALS TO BE POSSESSED AND PROPOSED USES

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
X		Cesium-137	Sealed source manufacturer or distributor and model number: SEE ATTACHMENT Device manufacturer or distributor and model number: SEE ATTACHMENT	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes ☑ Specific description of the gauge use:	☐ Not applicable ☐ Uses are: (Submit safety analysis supporting safe use)
X		Americium-241	Sealed source manufacturer or distributor and model number: SEE ATTACHMENT Device manufacturer or distributor and model number: SEE ATTACHMENT	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes ☑ Specific description of the gauge use:	☐ Not applicable ☐ Uses are: (Submit safety analysis supporting safe use)

APPENDIX B

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
X		Californium-252	Sealed source manufacturer or distributor and model number: SEE ATTACHMENT Device manufacturer or distributor and model number: SEE ATTACHMENT	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes ☑ Specific description of the gauge use:	☐ Not applicable ☐ Uses are: (Submit safety analysis supporting safe use)
X		Other Isotope (Specify): COBALT-60	Sealed source manufacturer or distributor and model number: SEE ATTACHMENT Device manufacturer or distributor and model number: N/A	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes ☑ Specific description of the gauge use:	☐ Not applicable ☐ Uses are: (Submit safety analysis supporting safe use)
	X	*Financial Assurance Required and Evidence of Financial Assurance Provided*				

ITEMS 7 THROUGH 11: TRAINING AND EXPERIENCE, FACILITIES AND EQUIPMENT, RADIATION SAFETY PROGRAM, AND WASTE DISPOSAL

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE – RADIATION SAFETY OFFICER Name: Dennis Sixbey	Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience – Radiation Safety Officer" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	☑	☐
8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS	Before using licensed materials, authorized users will have successfully completed one of the training course described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev 1, dated November 2001.	☑	☐
9. FACILITIES AND EQUIPMENT	No information needs to be submitted in response to this item; key issues are addressed under "Radiation Safety Program – Public Dose" and "Radiation Safety Program – Operating and Emergency Procedures."	Separate Item 9 Response Need Not Be Submitted With Application	
10. RADIATION SAFETY PROGRAM – AUDIT PROGRAM	The applicant is *not* required to, and should not, submit its audit program to NRC for review during the licensing phase.	Need Not Be Submitted With Application	
10. RADIATION SAFETY PROGRAM – TERMINATION OF ACTIVITIES	The applicant is *not* required to submit a response to the termination of activities section during the initial application. However, when the license expires when the licensee ceases operation, NRC Form 314 must be submitted.	Need Not Be Submitted With Application	
10. RADIATION SAFETY PROGRAM – SURVEY INSTRUMENTS	We will either possess and use, or have access to and use, a radiation survey meter that meets the Criteria in the section entitled "Radiation Safety Program – Instruments" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	☑	☐

APPENDIX B

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
10. RADIATION SAFETY PROGRAM – MATERIAL RECEIPT AND ACCOUNTABILITY	Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.	☑	☐
10. RADIATION SAFETY PROGRAM – OCCUPATIONAL DOSIMETRY	Either we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, or we will provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor.	☑	☐
10. RADIATION SAFETY PROGRAM – PUBLIC DOSE	The applicant is *not* required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	**Need Not Be Submitted With Application**	
10. RADIATION SAFETY PROGRAM – OPERATING AND EMERGENCY PROCEDURES	We will implement and maintain the operating and emergency procedures in Appendix H of NUREG-1556, Vol. 1, Rev. 1, dated November 2001, and provide copies of these procedures to all gauge users and at each job site. **OR** Operating and emergency procedures will be developed, implemented, and maintained and will meet the criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	☑ ☐	☐
10. RADIATION SAFETY PROGRAM – LEAK TEST	Leak tests will be performed at intervals approved by NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions.	☑	☐ **The information in Appendix J supporting a request to perform leak testing and sample analysis is attached.**

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
10. RADIATION SAFETY PROGRAM – MAINTENANCE	*Routine Cleaning and Lubrication* We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions. *Non-Routine Maintenance* We will send the gauge to the manufacturer or other person authorized by NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.	☑ ☑	☐ ☐ **The information listed in Appendix G supporting a request to perform non-routine maintenance in-house is attached.**
10.RADIATION SAFETY PROGRAM – TRANSPORTATION	The applicant is *not* required to submit its response to transportation during the licensing process. However, this issue will be reviewed during inspection.	**Need Not Be Submitted With Application**	
11. WASTE MANAGEMENT – GAUGE DISPOSAL AND TRANSFER	The applicant is *not* required to submit a response to waste management during the licensing process. However, the licensee should develop, implement, and maintain gauge transfer and disposal procedures in its radiation protection program.	**Need Not Be Submitted With Application**	

INVENTORY of COMMERCIAL DEVICES and RADIOISOTOPE SOURCES

Source	Quantity (millicuries)	Source Disposition (Serial No., Mfg date)	Gauge Description (Serial No.)	Future Actions
^{241}Am	14	By itself (none)	Orig. Cem. Cont. Gauge	Dispose, NIST 8/2006
^{137}Cs	0.56	By itself (none, May 73)	Orig. Cem. Cont. Gauge	Dispose, NIST 8/2006
^{241}Am	14	By itself (none, 8/20/74)	MLI Gauge #1	Dispose, NIST 8/2006
^{241}Am	14	By itself (none, 8/20/74)	MLI Gauge #2	Dispose, NIST 8/2006
^{241}Am + Be	300	By itself (none, 1972)	Water Content Gauge	Dispose, NIST 8/2006
^{137}Cs	10	In commercial device (none, 3/4/82)	CPN DMD (#MX 2044351)	
^{137}Cs	500	By itself (no information)	Consolidation Monitoring Device	Dispose, NIST 8/2006
^{226}Ra	4	In commercial device (none)	Seaman DOR-1000 (#1026)	
^{241}Am + Be	100	In commercial device (#55 8909)	Troxler 3241-C (#1645)	
^{137}Cs	8	In commercial device (#75 1569)	Troxler 4640-B (#1083)	
^{137}Cs	5	In commercial device (#52 5353)	Troxler 2376 (#298)	
^{241}Am + Be	40	In commercial device (#CAA-169)	Troxler 3401 (#4114)	
^{137}Cs	8	In commercial device (#CC-1127)	Troxler 3401 (#4114)	
^{137}Cs	10	In commercial device (none, 3-15-90)	CPN 501DR Depthprobe (#D70069650)	
^{241}Am + Be	50	In commercial device (none, 4-7-90)	CPN 501DR Depthprobe (#D70069650)	
^{137}Cs	8	In commercial device (#75 1795)	Troxler 3440 (#20438)	
^{241}Am + Be	40	In commercial device (#47 15916)	Troxler 3440 (#20438)	
^{241}Am	10	In commercial device (#98-9254)	Troxler 4430 (#15)	
^{252}Cf	0.06	In commercial device (#7684)	Troxler 4430 (#15)	

INVENTORY of COMMERCIAL DEVICES and RADIOISOTOPE SOURCES

Source	Quantity (millicuries)	Source Disposition (Serial No., Mfg date)	Gauge Description (Serial No.)	Pending Disposal
^{241}Am	10	In commercial device (#98-9247)	Troxler 4430 (#20)	
^{252}Cf	0.06	In commercial device (#7677)	Troxler 4430 (#20)	
^{137}Cs	8	In commercial device (#75 1577)	Troxler 4640-B (#1088)	
^{241}Am + Be	100	In commercial device (#55 7792)	Troxler 3241-C (#595)	
^{137}Cs	8	In commercial device (#50 3957)	Troxler 3440 (#15115)	
^{241}Am + Be	40	In commercial device (#47 10594)	Troxler 3440 (#15115)	
^{252}Cf	5.4	By itself (none, 11/27/96)	Radiography Lab (#FTC-CF-872)	Dispose, NIST 8/2006
^{60}Co	0.0005	By itself (NIST SRM 4203D-74, Jan 95)	Radiography Lab (#SRM4203D-74)	Dispose, NIST 8/2006
^{137}Cs	0.000007	By itself (none)	Radiography Lab (#SRM4215E-83)	Dispose, NIST 8/2006
^{60}Co	0.00019	By itself (none)	Radiography Lab (#SRM4215E-83) (Both sources in one encapsulation)	Dispose, NIST 8/2006