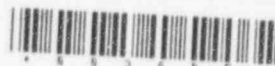


## MATERIALS LICENSE

Amendment No. 13  
Corrected Copy

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated January 23, 1997	
1. Missouri Department of Transportation		3. License Number 24-20415-01 is amended in its entirety as follows:	
2. P.O. Box 270 Jefferson City, MO 65102		4. Expiration Date February 28, 1999	
		5. Docket or Reference No. 030-18363	
6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License	
A. Cesium-137	A. Sealed source (Troxler Dwg. No. A-102112)	A. No single source to exceed 10 millicuries each	
B. Americium-241	B. Sealed source (Troxler Dwg. No. A-102451)	B. No single source to exceed 50 millicuries each	
C. Americium-241	C. Sealed source (Troxler Dwg. No. A-100337 or A-100608)	C. No single source to exceed 300 millicuries for A-100337 or 100 millicuries for A-100608	
D. Americium-241	D. Sealed source (Campbell Pacific Nuclear Model CPN-131)	D. No single source to exceed 100 millicuries	
E. Cesium-137	E. Sealed source (Troxler Drawing No. A-102112)	E. No single source to exceed 10 millicuries	
F. Cesium-137	F. Sealed source (HSI Drawing No. 2200064)	F. No single source to exceed 11 millicuries	
G. Americium-241	G. Sealed sources (HSI Drawing No. 2200067)	G. No single source to exceed 44 millicuries	
H. Cesium-137	H. Sealed sources (CPN Model 131)	H. No single source to exceed 10 millicuries	

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5. Byproduct, source, and/or special nuclear material
- I. Americium-241
- J. Americium-241
7. Chemical and/or physical form
- I. Sealed sources (CPN Model 131)
- J. Sealed source (Troxler Dwg. No. A-102700)
8. Maximum amount that licensee may possess at any one time under this license
- I. No single source to exceed 50 millicuries
- J. No single source to exceed 10 millicuries
9. Authorized Use:
- A. and B. To be used in Troxler Model 3400 Series surface moisture/density gauges to measure properties of construction material.
- C. To be used in Troxler Model 3241 asphalt content gauge to measure asphalt content of construction material.
- D. To be used in Campbell Pacific Nuclear Model AC-2 surface moisture/density gauges to measure properties of construction material.
- E. To be used in Troxler Model 4640 or 4545 Series density gauges to measure the density of construction materials.
- F. and G. To be used in Humbolt Model HS-5001 surface moisture/density gauges to measure the properties of construction materials.
- H. and I. To be used in CPN Model MC-3 moisture/density gauges to measure the properties of construction materials.
- J. To be used in Troxler Model 4300 Series moisture gauges to measure the moisture of construction materials.

CONDITIONS

10. A. Licensed material may be stored at 200 Harrison Street, Jefferson City, Missouri, 1511 Missouri Boulevard, Jefferson City, Missouri, 1617 Missouri Boulevard, Jefferson City, Missouri and at various Department of Highway and Transportation field offices throughout the State of Missouri, in accordance with statements in letters dated July 8, 1987, April 24, 1995 and June 28, 1995. The licensee shall maintain a list of field offices used for storage for inspection by the NRC.

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- B. Licensed material may be used at temporary job sites throughout the State of Missouri.
11. A. The Radiation Safety Officer for this license is Jerome B. Hirtz.
- B. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have completed the device manufacturer's training course and have been designated by the licensee's Radiation Safety Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.
12. A. (1) The source(s) specified in Item(s) 7.A. through 7.J. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
- C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch. The report shall specify the source involved the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. The licensee is authorized to collect leak test samples for analysis by the University of Missouri in accordance with letter dated January 31, 1994 or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Sealed sources containing licensed material shall not be opened by the licensee.

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14. When performing tests at temporary job sites, the authorized user shall not leave the moisture/density gauge unattended. Upon completion of tests the device shall be locked in the licensee's vehicle or a secure building to prevent unauthorized use, loss or theft.
15. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage, or when not under the direct surveillance of an authorized user.
16. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
17. In addition to the possession limits in Item 8., the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
18. The licensee may remove the source rod from Troxler Model numbers 3400 or 3241 for the purpose of cleaning, maintenance or repair of the gauge(s) in accordance with procedures outlined in letter dated November 21, 1991.
19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
  - A. Applications dated July 1, 1988, December 16, 1992, October 14, 1993, January 23, 1997; and
  - B. Letters dated July 8, 1987, April 22, 1988, September 22, 1988, January 3, 1990, August 16, 1990, November 21, 1991 (with attachments), February 23, 1993, November 10, 1993 and January 31, 1994, April 24, 1995, June 28, 1995 (with attachments), and January 24, 1997 (with attachments).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUN 05 1997

By

*Frederic B. Moten*  
Nuclear Materials Licensing Branch, Region III

**COPY**



JUN 05 1997

Jerome Hirtz  
Radiation Safety Officer  
Missouri Department of  
Transportation  
P.O. Box 270  
Jefferson City, MO 65102

Dear Mr. Hertz:

Enclosed you will find a corrected copy of Amendment No. 13 to License No. 24-20415-01 to reflect a correction to License Condition 19. I have reformatted this condition and added your letter dated January 24, 1997 which describes your new survey meter calibration procedures.

I apologize for any inconvenience this omission may have caused you. If you have any questions, please call me at 630-829-9887.

Sincerely,

Original Signed By  
Evelyn R. Matson  
Nuclear Materials Licensing Branch

License No. 24-20415-01  
Docket No. 030-18363

Enclosure: Corrected copy of Amendment  
No. 13 to License No. 24-20415-01

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