30-8578

FORM NRC-313 I (3-80) 10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

See attached instructions for details.

Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.

1. APPLICATION FOR: *(Check and/or complete as appropriate)*

- a. NEW LICENSE
- b. AMENDMENT TO: LICENSE NUMBER
- X c. RENEWAL OF: LICENSE NUMBER 29-15105-01

2. APPLICANT'S NAME *(Institution, firm, person, etc.)*

Tri County Asphalt Corporation

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION (201) 226-5555

3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION

Kenneth Zadora (Director of Quality Control)

TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION (201) 226-5555

4. APPLICANT'S MAILING ADDRESS *(Include Zip Code) (Address to which NRC correspondence, notices, bulletins, etc., should be sent.)*

Eisenhower Parkway, P.O. Box G
Roseland, New Jersey 07068

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED *(Include Zip Code)*

Throughout the State of New Jersey
(Temporary job sites of the applicant)

(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)

6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL
(See Items 16 and 17 for required training and experience of each individual named below)

	FULL NAME	TITLE
a.	Kenneth Zadora	Director of Quality Control
b.		
c.		

RECEIVED BY LFMS Date 3/22/82 NRC Reg I Log Brown By Orig. To Action Comp. 3/24/82

69845 #110/3L Renewal 3/22/82 Brown

Applicant ... Amt. ... Fee Category ... Received By ...

7. RADIATION PROTECTION OFFICER

Kenneth Zadora

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities.

8. LICENSED MATERIAL

LINE NO.	ELEMENT AND MASS NUMBER (A)	CHEMICAL AND/OR PHYSICAL FORM (B)	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) (C)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME (D)
(1)	*Cesium-137	Sealed Source	Parkwell Lab Croton, Ohio	10 MCi
(2)	*Americium-241: Beryllium	Sealed Source	Parkwell Lab Croton, Ohio	50 MCi
(3)	*Per Troxler	Drawing A-100281		
(4)				

DESCRIBE USE OF LICENSED MATERIAL (E)

(1)	Troxler Model 2401 Compac Portable Nuclear Moisture/Density Gauge. ML10
(2)	" " " " " " " " "
(3)	
(4)	

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29-15105-01 PDR

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FORM NRC-313 I (3-80)

10680

9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	Portable Nuclear Moisture/Density Gauge	Troxler Electronic Laboratories, North Carolina	Model 2401
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A	MANUFACTURER'S NAME B	MODEL NUMBER C	NUMBER AVAILABLE D	RADIATION DETECTED (alpha, beta, gamma, neutron) E	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F
(1)	None					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

N/A

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
☒ (1) FILM BADGE ☐ (2) THERMOLUMINESCENCE DOSIMETER (TLD) ☐ (3) OTHER (Specify): _____	R.S. Landauer, Jr. Company Glenwood Science Park Glenwood, Illinois	☐ MONTHLY ☐ QUARTERLY ☒ OTHER (Specify): Every two weeks

13. FACILITIES AND EQUIPMENT (Check were appropriate and attach annotated sketch(es) and description(s).

☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.

☒ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC. Attachment #1

☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.

☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

Return source to Troxler Electronic Laboratories, North Carolina

b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE.

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures *(if needed)*, day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.

16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.

    a. Principles and practices of radiation protection.

    b. Radioactivity measurement standardization and monitoring techniques and instruments.

    c. Mathematics and calculations basic to the use and measurement of radioactivity.

    d. Biological effects of radiation.

17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our 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.

a. LICENSE FEE REQUIRED *(See Section 170.31, 10 CFR 170)*	b. CERTIFYING OFFICIAL *(Signature)* [signature]
	c. NAME *(Type or print)* Kenneth Zadora
(1) LICENSE FEE CATEGORY: 1 I	d. TITLE Director of Quality Control
(2) LICENSE FEE ENCLOSED: $ 110.00	e. DATE 3/9/82

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FORM NRC-313 I (3-80)

GPO 866 632

15. Radiation Protection Program

A Safety measures employed in transporting the gauge. When in transit the gauge handle is latched in the top or stored position and secured by a lock. The gauge in turn is placed in the shipping case and locked, this is then transported in the trunk of a car or the enclosed and locked bed of a pick up truck.

B Unauthorized use on the job site. The gauge is not left unattended on the job site, if for any reason this must occur it is secured as I have described in Item #1.

C Emergency procedures in case of accident or loss of gauge. The gauge is used under the supervision of Kenneth Zadora and is not used unless there is communication available to reach me by my personnel. I (Kenneth Zadora) will notify the local police, state personnel and the NRC. I can be reached at our office 226-5555, or mobil two way radio communication.

D Gauge maintenance and dismantling. The only field maintenance or dismantling of the gauge done by me (Kenneth Zadora) would be the replacement of the scaler assembly and/or any of the printed circuit boards contained therein, which does not require any dismantling of the shielding. Any other repair work is done by the manufacturer of the gauge.

E Leak testing procedure. Leak testing will be performed utilizing a Troxler RK-1 Leak Test Kit with the wipes analyzed by Troxler Electronic Laboratories, North Carolina.

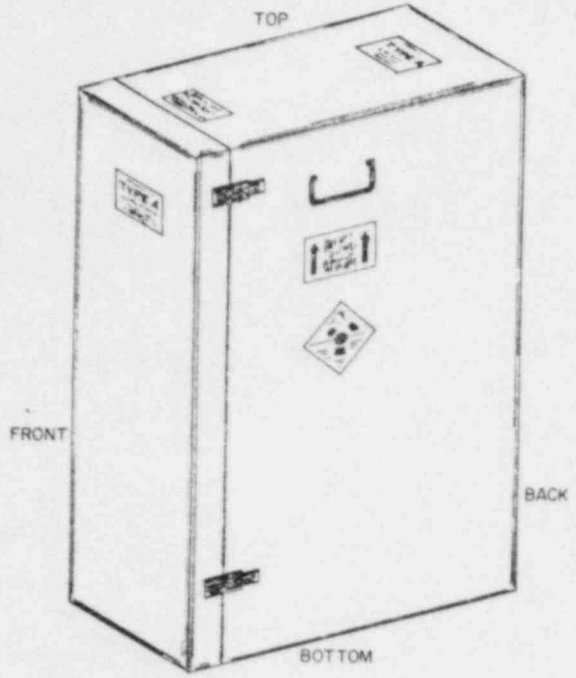
16. Formal Training in Radiation Safety.

Kenneth Zadora was trained in the principles and practices of radiation protection by Troxler Electronic Laboratories, Inc., Research Triangle Park, North Carolina, for the equivalent of two days in February of 1971.

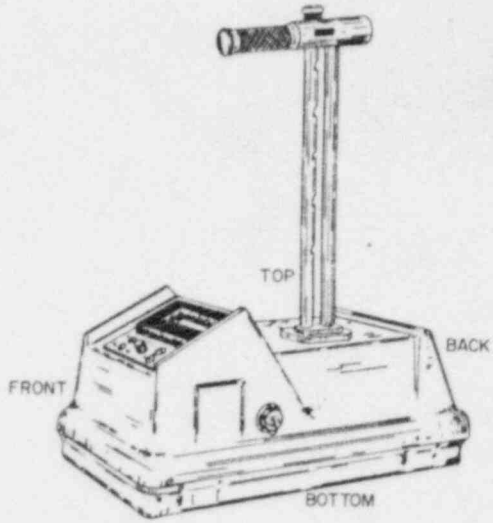
17. Experience

Kenneth Zadora received two days of formal and on the job training with the Troxler Model 2401 Compac Portable Nuclear Moisture/Density Gauge at the Troxler Electronic Laboratories, Research Triangle Park, North Carolina facilities.

Attachment #1



NOTE:
SIDE, BACK AND FRONT MEASUREMENT TAKEN 6 INCHES UP FROM BOTTOM SURFACE



10680

SHIPPING CASE

2 mg Ra^{226}-Be SOURCE

	SURFACE	1 METER FROM SURFACE
FRONT	2.5	0.3
BACK	9	0.5
SIDE	7	0.4
TOP	0.7	0.2
BOTTOM	6	0.4
HANDLE	—	—

8 mci Cs^{137}, 50mci Am^{241}-Be

FRONT	1.1	0.3
BACK	5	0.4
SIDE	1.8	0.4
TOP	0.5	0.2
BOTTOM	4	0.3
HANDLE	—	—

GAUGE

SURFACE	1 FOOT FROM SOURCE LOCATION
3.6	2.1
16	2.8
12	2.1
14	2.1
32	2.8
0.7	—
1.8	1.1
9	1.8
6	1.1
9	1.4
25	2.1
0.7	—

ALL MEASUREMENTS MADE WITH A VICTOREEN MODEL 2305 IONIZATION-CHAMBER SURVEY METER CALIBRATED 11/11/70

The gauge is stored in the above case and stored in our Quality Control Lab., which has restricted access by other personnel.

DWG NO C-100806 REV

DATE / BY	USED ON	TROXLER ELECTRONIC LABORATORIES, INC.		
	2401,2402 2451,2452	DRN BY JWR 5/17/71	2400 SERIES RADIATION PROFILES	TOLERANCE N.S.
		DES		SHEET 1 OF 1 SCALE —
		APP		C-100806 REV A