NRC FORM 313
(7-86)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires 5-31-87

APPLICATION FOR MATERIAL LICENSE

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.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION 2
631 PARK AVENUE
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

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 JURISDICTION.

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

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 34-20292-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

G. M. Rana
R & R International, Inc.
3675 Copley Road - P O Box 4383
Akron, OH 44321

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Stored at 3675 Copley Road - Akron, OH 44321

Used at temporary job sites in states subject to NRC's regulatory authority.

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

G. M. Rana

TELEPHONE NUMBER: (216) 666-2200

SUBMIT ITEMS 5 THROUGH 11 ON 8½ 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.
see attached

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

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

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS
see attached

9. FACILITIES AND EQUIPMENT
see attached

10. RADIATION SAFETY PROGRAM
see attached

11. WASTE MANAGEMENT
see attached

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY: 1-J
AMOUNT ENCLOSED: $ 120.00

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, 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.

NATURE, CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
	G. M. Rana	President	6-22-87

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

<$250K	X	$1M–3.5M	
$250K–500K		$3.5M–7M	
$500K–750K		$7M–10M	
$750K–1M		>$10M	

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*: 30

c. NUMBER OF BEDS: N/A

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(Dollar and/or staff hours)* ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? *(NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)*

[X] YES [ ] NO

RECEIVED
JUN 25 1987
REGION III

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
REN	June 18 III	3P		M. Measu
AMOUNT RECEIVED	CHECK NUMBER			DATE
$120	7452			7/14/87

CONTROL NO 83758

JUN 25 1987

8804250231 870911
REG3 LIC30
34-20292-01 PDR

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5. Radioactive Material

A. Cesium - 137
Sealed sources - Troxler Drawling #A-102112
No single source to exceed 9 millicuries
To be used in Troxler 3400 series gauges

B. Americium - 241
Sealed sources - Troxler Drawling #A-102451
No single source to exceed 40 millicuries
To be used in Troxler 3400 series gauges

6. Purpose For Which Licensed Material Will Be Used

The licensed material in item 5 will be used in a moisture-density gauge which is employed for measuring the moisture and density of construction materials such as soil and asphalt.

7. Individual Responsible For Radiation Safety Program And Their Training And Experience

Mr. G. M. Rana has completed the Troxler Electronic Laboratories, Inc. Standard Training Course. (Please refer to the enclosed certificate, page 3)

8. Training For Individuals Working In Or Frequenting Restricted Areas

Each employee will complete the Troxler Electronic Laboratories, Inc. Standard Training Course before being permitted to use the Troxler device. Records documenting the training of each employee will be maintained for two (2) years from the date the training is completed.

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9. Facilities And Equipment

Please refer to the drawing of our facilities (page 4). The device is stored in the locked security room. The key to the security room is kept locked in a cabinet in an office. The device is in locked storage in the security room or is physically watched by an authorized user when in the field at all times.

10. Radiation Safety Program

10.1 Personnel Monitoring Equipment

Individuals entering restricted areas who receive or who are likely to receive a dose in excess of 25% of the dose specified in paragraph 20.101(a) of 10 CFR part 20, and individuals under 18 years of age who receive or are likely to receive a dose in excess of 5% of the calendar quarter doses specified in paragraph 20.101(a) will use personnel monitoring equipment. The personnel monitoring equipment we will use is film badges. The film badges will be changed at intervals not to exceed one (1) month.

10.2 Radiation detection Instruments

Personnel will wear a film badge when using the Troxler device.

10.3 Leak Testing

A leak-test will be performed on the instrument every six (6) months. The Troxler Model 3880 Leak Test Kit (part #102868) is employed. Test samples will be taken by G. M. Rana. The smear will then be sent back to the kit supplier; Troxler Electronic Laboratories, Inc., Cornwalis Road, Research Triangle Park, NC 27709 (NRC License #32-05998-03).

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10.4 Maintenance

Any maintenance we will perform (such as cleaning) will always be done with the radioactive source in the safe shielded position.

10.5 Transportation of Devices to Field Locations

Packaging and transport of the Troxler device will be carried out in accordance with applicable DOT regulations.

10.6 Operating and Emergency Procedures

Each person who uses the Troxler device is provided a copy of the following procedures:

1. Use of personnel monitoring. All personnel who use the Troxler device should wear their personal dosimeters when they are working with the device. Dosimeters are to be changed monthly.

2. Use of the device. Step by step procedures for the use of the device as described in the Troxler 3400-B Series instruction manual.

3. Storage of the device. The power switch is set to "off" and the device placed and fastened in its transport case. A rpoject manager of R & R will unlock the security room at the request of an authorized operator who has returned from the field. The device is placed in the security room and the project manager will lock and check the door.

4. Transportation. The device will be placed and fastened in its transport case, which will be placed in a portion of the vehicle which can be locked. The device will not be placed less than 30 cm from passengers and will not be lessthan one meter from undeveloped film for more than eight (8) hours. All packaging and transport of the Troxler device will be carried out in accordance with applicable DOT regulations.

5. Leak testing. The leak testing will be performed by G. M. Rana (the individual specified in item 7).

6. Emergency procedures.

A. In the event of physical damage to a gauge, an exclusion area within a radius of 15 feet around the gauge shall be maintained until the extent of source damage (if any) is determined. If a vehicle is involved, it will be stopped and remain stopped until the extent of the contamination hazard (if any) is determined. If visual examination of the instrument and source indicates damage to the source, including fracture of the weld, the individuals listed in D below will be notified. The instrument will be removed using a long handled tool (such as a shovel) and placed in a suitable container (such as a metal drum).

B. In the event of source leakage or separation (real or suspected) of a source from its normal containment, the 15 feet exclusion area shall be maintained until the arrival of appropriate authorities.

C. If the rod containing the source becomes separated from the gauge, the rod will be picked up using pliers or tongs and inserted into the top of the instrument, thus providing shielding. The rod will then be secured in place using tape to prevent accidental unshielding of the source.

D. Individuals to be notified in case of damage to the source are:

1) Company Radiological Safety Officer
2) U.S. NRC Regional Office
3) State Health Department
4) Local Authorities
5) Troxler Electronic Laboratories

11. Waste Management

Disposal will be by transfer of the radioactive material to a licensee specifically authorized to process it.

12. Fees

From 10 CFR, 170.31, category 1-J; the renewal fee is $120.00.

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

GURINDER M.S. RANA

of

INDUSTRIAL INSPECTION INDUSTRIES

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC. TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

1. *Principles and practices of radiation protection.*
2. *Leak testing procedures.*
3. *Mathematics and calculations basic to the use and measurement of radioactivity.*
4. *Biological effects of radiation.*
5. *Radioactivity measurement standardization and monitoring techniques and instruments.*
6. *Accident and incident procedures.*
7. *Procedures for nuclear gauge storage and transportation.*
8. *General safety precautions.*

Gauge Operation

1. *Instrument theory*
2. *Operating procedures*
3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

Harvey Desilvey
INSTRUCTOR

3/22/76
DATE

William F. Troxler
PRESIDENT

R & R International, Inc.
3675 Copley Road
Akron, Ohio 44321
(216) 666-2200

JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____