NRC FORM'313 110-87) 10 CFR 30, 32, 33, 34! 35 and 40 APPLICATION FOR	MATERIAL LICENSE	U.S. NUCLEA! REGULATORY COMMISSION APPROVED BY OMB 3150-0120 Expires: 5-30-90
INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR C OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BI	DETAILED INSTRUCTIONS FOR COMPLETING	APPLICATION, SEND TWO COPIES
APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:	IF YOU ARE LOCATED IN:	
U.S. NUCLEAR REGULATORY COMMISSION DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS WASHINGTON, DC 20565	ILLINDIS, INDIANA, IOWA, MICHIGAN, MINNE WISCONSIN, SEND APPLICATIONS TO:	SOTA, MISSOURI, OHID, OR
ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:	U.S. NUCLEAR REGULATORY COMMISSION MATERIALS LICENSING SECTION 799 ROOSEVELT ROAD GLEN ELLYN, IL 60137	, REGION III
CONNECTICUT, DELAWARE, DISTRICT OF COLUMEIA, MAINE, MARYLAND, MABSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RIIODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:	ARKANSAS, QOLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYONING, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION IV MATERIAL RADIATION PROTECTION SECTION 611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TX 78011 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	
U.S. NUCLEAR REGULATORY COMMISSION, REGION I NUCLEAR MATERIALS SAFETY SECTION B 476 ALLENDALE ROAD KING OF PRUSSIA, PA 19406		
ALABAMA FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNEBSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:		
U.S. NUCLEAR REGULATORY COMMISSION, REGION II NUCEAR MATERIALS SAFETY SECTION 101 MARIETTA STREET, SUITE 2900 ATLANTA, GA 30323		
PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.	I REGULATORY COMMISSION ONLY IF THEY WISH	TO POSSESS AND USE LICENSED MATERIAL
1. THIS IS AN APPLICATION FOR (Check appropriate item)	2. NAME AND MAILING ADDRESS OF APPLICA	NT (Include Zip Code)
A. NEW LICENSE	METROPOLITAN SOILS & E	NG. MATLS. LAB., INC.
B. AMENDMENT TO LICENSE NUMBER	G.P.O. BOX 2291	
X C. RENEWAL OF LICENSE NUMBER 52-18059	San Juan, Puerto Rico	00936
RIO PIEDRAS, PUERTO RICO NO 00921	R AUTHORITY	TELEPHONE NUMBER
IBRAHIM RIVERA		809-793-2500
SUBMIT ITEMS 5 THROUGH 11 ON 8% x 11" PAPER. THE TYPE AND SCOPE OF INFORMAT	ION TO BE PROVIDED IS DESCRIBED IN THE LICET	SE APPLICATION GUIDE.
b. RADIDACTIVE 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 AND EXPERIENCE.	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.	
9. FACILITIES AND EQUIPMENT.	10. RADIATION SAFETY PROGRAM.	
11 WASTE MANAGEMENT	12. LICENSEE FEES (See 10 CFR 170 and Section	170.31) [AMOUNT 230.00
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## METROPOLITAN SOILS AND

# ENGINEERING MATERIALS LABORATORY, INC.

G.P.O. BOX 2291, SAN JUAN, PUERTO RICO 00936, AMERICO MIRANDA 1213, RIO PIEDRAS, P.R. 00921 / 793-2500

rogram Code:	03121	•
icense No.	52-18059-01	
Item 5 - Radioad	ctive Licensed Material	
(a) Element & Mass Numer	(b) Chemical/Physical form	(c) Max. Amount Which Will be Possessed
Cesium 137	Sealed Source (CPN 131)	Not to Exceed 10 MC/ Source Ea. Gauge
Americium 241	Sealed Source (CPN 131)	Not to Exceed 50 MC/ Source/Gauge

The material is to be used in Campbell Pacific Co. Model Mc Series Soils gauge (not to exceed 3 gauges).

Item 6 - The gauge is to be used for the Measurement of Moisture content and density of construction materials.

Item 7 - Individuals responsible for radiation safety

- Ibrahim Rivera Completed a CPN Radiological Formal Safety Training of two days given by Brainard Kilman Drill Co. Following the procedures of campbell Pacific Nuclear in their training manual #BRC-82 entitled "Radiation Safety, Operating Procedures and Technical Maintenance". Mr. Rivera is the Radiation Safety Officer. The training was completed in 1978. The gauge is used under his direct supervision.
- Neftalí Meléndez Received on the job training by Mr. Ibrahim Rivera, Jr.

Mr. Meléndez attended and completed a CPN Radiological

Formal Safety Training given by Brainard & Kilman Drill Co. during 1982.

- 3) Juan Medero- Completed a CPN Radiological Safety training course in December, 1987 in San Juan P.R. the course instructor was Mr. Rodolfo Saavedera, from Brainard-Kilman Dril Co.
- Item 8 Training Provided

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Mr. Julio Rodríguez attended and completed a Formal Training course given by Brainard & Kilman on safety and operation during December 1987 in San Juan, Puerto Rico.

- Item 9 Facilities & Equipment
  - (1) The gauges shall be stored while on the office in a closet as shown in the enclosed plan. The closet is locked all during the day & night except to sore & removal of material.
  - (2) The gauges area to be transported in an company vehicle (trunk or rear of Pick-Up Truck) locked and inside a suitable locked metal case in such a way unauthorized persons has access to the gauges.

Item 10 - Radiation Safety Program

10.1- Personnel Monitoring Equipment

All personnel who are likely to receive a dose in excess of specified should wear at all times a film badge dosimeter type G-l Supplied by R.S. Landauer & Co. and intervals not to exceed one (1) month.

10.2- Radiation Detection Instruments

All personnel will wear a film badge while working with the device.

10.3- Leak Testing

Leak tests shall be performed every six (6) months by the radiation safety officer. With kit TD-113 supplied by: CPN 2830 Howe Road Martinez, Cal. 94553

10.4- Maintenance

Maintenance shall be limited only for cleaning and done with the source in the shielded position. No maintenance shall be performed on the gauge that involves the dismantling or/and removal of source holder by anyone.

#### 10.5- Tranportation of Devices to the Field.

Packaging and transport of the device should be carried out according dot regulations:

- 1) Subpart E of 49 CFR Part 172
- 2) Subpart I of 49 CFR Part 173

## 10.6- Operating & Emergency Procedures

All personnel will be provided with operating and emergency procedures in writing and including the following:

- Principles of measuring the moisture and density of a soil by Nuclear methods.
- Health Safety Regulations & Emergency Measures.
  - A) Transportation of MC-1 Gauge to job site. The gauge shall be carried in the user's Company Vehicle in the trunk or rear of the pick-up truck, as the case may be. It shall always be carried within the manufacturer's shipping case which shall always be locked during transportation.
  - B) The gauge shall be returned to the office every day after work hours for overnight storage. The gauge shall be kept in the fiberglass, foam padded shipping case and locked to prevent access by unauthorized users. The user shall be responsible for the

lock keys: loss of the keys shall be notified to the radiation safety officer so that the lock may be changed.

- C) At the job site, the user of the gauge shall be responsible to prevent unauthorized access of the gauge. He shall be in continuous supervision of the gauge and shall, whenever possible, maintain the shipping case within his vehicle. He shall keep his vehicle close to the test location in order to prevent accidental damage of the gauge by other field equipment (such as compactors or other earth moving equipment working nearby).
- D) In case of an accident in the office, in the field, or during transportation, where the user suspects that damage has been caused to the gauge the following procedures shall be followed:
  - Keep other people away from site.
  - b. The user must then decide whether the gauge is either (1) superficially damaged, dented, or injured from a drop or from a minor runover on (2) the gauge is broken apart, severely burned, severely crushed with parts spread over a given area or the source area is visually damaged.

## ACTION: In case of (1) Superficial Damage

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- Verify the source is in place, the source location is not torn apart, view the source area by turning the gauge over. Try to avoid walking through the site material where the gauge was pushed or pulled. Inspect the source area visually to insure no damage to shutter or source mounting.
- II) If source area is intact, pick up gauge, place in storage container and return to permanent storage area.
- III) Call the RSO-Tel: 763-0071 or 781-2857 and CPN factory (415) 687-6472, for assistance in shipping the gauge back to the factory for repair or disposal.
- ACTION: In case of (2) Severe Damage gauge visibly broken apart.
  - Freeze the site. Rope off the damage site for approximately 15 feet around in the field. If in a vehicle stop it and have the driver (yourself) walk away. Do not walk through the damage site. If radioactive material is loose it can be picked up and tracked elsewhere.
  - II) Call the RSO- Tel: 763-0071 or 781-2857 or the Public Health Department Tel: 343-2550 or CPN factory Tel: (415) 687-6472. Get an expert radiation technician to the site with an operating survey meter who can determine if ratioactive material is lost or intact. In addition it may be necessary to call the Fire Dept. Tel: 343-2330, or Police Dept. Tel: 343-2020 in case of theft or vehicle accident.

- III) Let the radiation expert determine whether the site is safe, remove the contamination if there is any, and prepare the gauge for shipment to the factory for repair or disposal.
  - IV) If severe damage occured it may become necessary to dispose of the source through a local agency licensed for this operation. The radiation technicican or local public health department will assist in this action.
  - V) Call the local CPN factory (the KSO will be in charge of making this contact) and advise of the problem.
  - VI) The address and telephone of the Nuclear Regulatory Commission Inspection and Enforcement Regional Offices covering Puerto Rico is:

Region II, USNRC Office of Inspection and Enforcement 230 Peach Tree Street, N.W. Suite 1217 Atlanta Georgia 30303

For any emergency: Telephone (Days, nights and Holidays)

(404) 221-4503

VII) No maintenance shall be performed on the gauge that involves the dismantling, removal of source holder by anyone within our organization. Any such maintenance shall be performed by the manufacturer, Campbell Pacific Nuclear.

Leak test to be performed every six (6) months by the radiation officer. The leak test kit TD-113 for use with CPN Nuclear Density Moisture Gauge will be used.

- 3. Field use of Nuclear Gauges
- Leak tests will be performed as per approved procedures.

Item 11 - Waste Management

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The source will be disposed of by sale to and authorized licensee or returned to the manufacturer.

