

JACA & SIERRA TESTING LABORATORIES
SOIL CONSULTING ENGINEERS

Soil and Material Testing Laboratories
Earth Work Supervisions

Tels. 761-2570 & 761-2668

Applicant...	86062
Check No...	86062
Amount/Fee Category	Amendment
Type of Fee	Amendment
Date Check Rec'd	8/26/83
Received By	Brown

G.P.O. Box 3116
San Juan, Puerto Rico 00936

March 16, 1983

RECEIVED BY LEMB	
Date...	8/26/83
Log...	AUG 6 II
By...	Brown
Orig. To	
Action Compl.	8/30/83

U.S. Nuclear Regulatory Commission
Office of Nuclear Materials Safety
and Safeguards
Washington, D. C. 20555

Dear Sirs :

This is a request for an Amendment to License No.52-19064-01 of Jaca & Sierra Testing Laboratories to possess and use two additional units CPN Model MC Series gauges for moisture/density measurements.

The chemical and/or physical form, the approved and proposed possession limits are as follows :

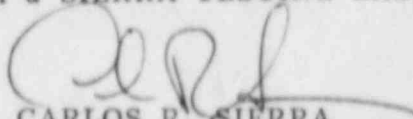
Isotope	Chemical and/or Physical form	Approved Possession Limit	Proposed Possession Limit
Cs-137	Sealed Source, Campbell Pacific	10 mCi	83 30 mCi
Am-241	Nuclear- Model CPN-131	50 mCi	AUG 19 150 mCi

It is understood that Jaca & Sierra Testing operators will continue accomplishing all safety precautions and procedures in the use and handling of any CPN gauge containing Cs-137/Am-241 sealed sources.

We will be glad to furnish any other additional information found to be necessary.

Sincerely yours,

JACA & SIERRA TESTING LABORATORIES


CARLOS R. SIERRA
President

RSC

P.S. Enclosed please find check #86062 in the amount of \$40.00 for the above License. Amendment.

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REG2 LIC30
52-19064-01 PDR

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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	Attending formal training course given by Brainard Kilman Drill		Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	Company following the format set forth by Campbell Pacific Nuclear in their training manual for instruction in the care, handling, and safety precaution when dealing with radioactive materials.		Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION: (Actual use of radioisotopes or equivalent experience.)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
		None		

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mR/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
Not applicable					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE

Not applicable

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED (For film badges, specify method of calibrating and processing, or name of supplier)

R.S. Landauer, Jr. & Co. (Film badges) Radiation Detection Co.
 Glenwood Science Park (will be changed) Box 1414
 Glenwood, Illinois, 60425 (monthly) Sunnyvale, California 94088

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No
14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. Leak test to be performed yearly by Radiation Officer. Removal of source holder will be performed only by the manufacturer.
15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, 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.

License Fee Category \$ 110.00

Fee Enclosed \$ 110.00

Date October 15, 1980

Jaca & Sierra Testing Laboratories

Applicant named in item 1

By:

CARLOS R. SIERRA
Partner

Title of certifying official

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.

Form AEC-313
(2-73)
10 CFR 30

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-R0027

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Materials Branch, Directorate of Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the licensee is subject to Title 10, Code of Federal Regulations, Part 20, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 16 and the appropriate fee enclosed. (See Note in Instruction Sheet).

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital person, etc. Include ZIP Code and telephone number.)	(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a). Include ZIP Code.)	
Iaca & Sierra Testing Laboratories G.P.O. Box 3116, San Juan, Puerto Rico 00936	1) Carr. 850, Km. 0.2 Bo. Las Cuevas Trujillo Alto, P.R.	2) Various Projects sites in the Is- land of Puerto Rico.
2. DEPARTMENT TO USE BYPRODUCT MATERIAL N/A	3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) N/A	
4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.) Mr. Pablo E. Agosto	5. RADIATION PROTECTION OFFICER. (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.) Eng. Carlos R. Sierra Refer to Exhibit (A)	

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6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.) Cesium 137 Sealed Source CPN 131 Not to exceed 10MC/ Source Each gauge Americium 241/BE Sealed Source CPN-131 Not to exceed 50 MC/ Source- Each Gauge	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.) Not to exceed 3 gauges <div data-bbox="520 1198 902 1568"> <p>RECEIVED BY LFMB</p> <p>Date OCT 30 1980</p> <p>Log. Oct. PG 11 N.L.</p> <p>By. Brown</p> <p>Orig. To</p> <p>Action Compl. 11/3/80</p> </div>
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7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)

To be used in Campbell Pacific Nuclear Corporation Model MC Series Soil Gauge for the Measurement of Moisture and Density or Construction Materials at Various jobsites within license jurisdiction.

Applicant	2707
Check no.	110(32)
Amount/Fee Category	Application
Type of Fee	OCT 30 1980
Name	Brown
Received by	

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INSPECTION AND ENFORCEMENT

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EXHIBIT A- RADIATOR OFFICER RESPONSABILITIES

- a) To assure that byproduct materials possessed under the license conform to the materials listed on the license.
- b) To assure that use of the devices, particularly in the field, is only by individuals authorized by the license.
- c) To assure that all users wear personnel monitoring equipment, such as film badges or thermoluminescence dosimeters (TLD), when required.
- d) To assure that gauges are properly secured against unauthorized removal at all times when they are not in use.
- e) To serve as a point of contact and give assistance in case of emergency (gauge damage in the field, fire, theft, etc.) to assure that proper authorities, for example, NRC, local police, and State personnel, are notified promptly in case of accident or damage to gauges.
- f) To assure that the terms and conditions of the license, such as periodic leak tests, are met and that the required records, such as personnel exposure records, leak test records, etc. are periodically reviewed for compliance with Nuclear Regulatory Commission regulations, requirements, and license conditions.

ATTACHMENT FOR LICENSE APPLICATION

This attachment is a part of the license application submitted by

Jaca & Sierra Testing Laboratories

G.P.O. Box 3116,

San Juan, Puerto Rico

14. We shall leak test the unit using the Campbell Pacific Nuclear Leak Test Kit or other approved leak test kit annually following the instructions for leak testing in the manufacturer's manual.

We shall insure that the gauge unit is securely fastened in all open vehicles with restraining straps or bars during transportation.

We shall provide all operators with a list of telephone numbers for use in emergency including those of the Radiation Protection Officer, the nearest State Department of Public Health, the nearest AEC facility, and police and fire departments.

15. Disposal of this source will not be required by the licensee directly.

The unit will be transferred only to authorized licensees for this specific unit and records maintained thereof.

If ultimate disposal is required, we shall contact the factory or the nearest AEC office or State Department of Public Health for disposal instructions.

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PERMANENT STORAGE LOCATION FOR NUCLEAR GAUGES

Jaca & Sierra Testing Laboratories

(Licensee)

Carr. 850, Km. 0.2, Bo. Las Cuevas,

(Permanent Storage Address)

Trujillo Alto, P. R. 00936

(City, State, and Zip)

(Date)

CERTIFICATION

I certify that the sketch of the proposed storage location is an accurate representation of our storage intentions. I also certify that the gauge will be stored on temporary jobsites in accordance with the same procedures and recommendations as closely as is practical.

Y

Rad Safe Officer

GENERAL

License regs require secure, locked storage of nuclear devices when not in use, with final key access only by authorized users. Each storage area will differ for each user, however, the final key access integrity will be maintained.

RECOMMENDATIONS

* Lighted area with electrical outlet for charging gauge while in storage.

* Gauge(s) 10' from nearest desk or other location requiring full time employee attention. Coming and going around the gauge is alright.

Check the other side of the nearest wall by the gauge. Somebody may work there full time.

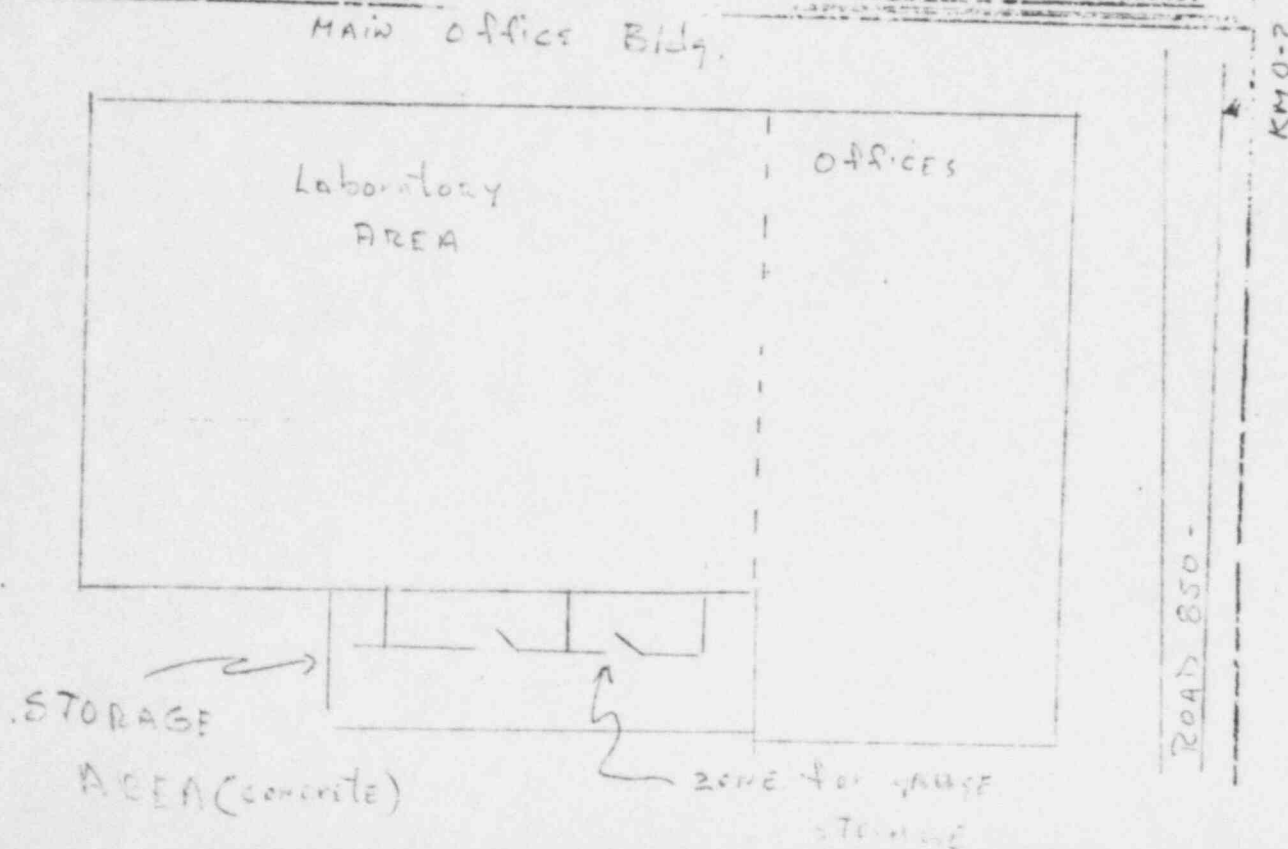
In a space shared with others, the gauge will be separately locked to the wall, floor, or pipe, thus preventing removal or movement.

TYPICAL STORAGE EXAMPLES

- Gauge shipping case, or "like" case, secured to the floor or wall in a shared closet or cabinet. Radiation signs on case, case locked and immobile.
- Gauge stored inside cabinet or closet with lock and sign on outside of cabinet or closet, limited key access. Gauge case is not necessarily locked (charging, etc.)
- Gauge case and/or cabinet or closet not locked, however, the room is locked with limited key access. Sign on room door.

PROPOSED STORAGE LOCATION SKETCH

The following sketch proposes the manner in which we will store our nuclear gauges. Doors, windows, desks, and work areas are designated. We have designated the hours per day required for employees for each task within 10 feet of the gauge.



NUCLEAR SAFETY PROCEDURES

In accordance with our radiological health license, the following nuclear safety procedures will be followed at all times. These procedures are a part of the license and a copy of this procedure sheet will be kept with the gauge calibration curves with the gauge at all times.

1. The PORTAPROBE will be securely restrained in vehicles during transportation to prevent theft while the vehicle is unattended or damage from being thrown out during an accident. Metal clamps, chains, or seatbelts will be used to secure the units in open vehicles or vans with open interiors.
2. Keys to the permanent storage area will be made available only to the named users and the radiation safety officer.
3. All users will carry their film badges with them when using the PORTAPROBE or any other nuclear devices.

The badges will be stored away from the gauges when not in use and will be stored away from heat.

4. Radiation labels or placards will be removed from vehicles when the vehicles are not actually being used for transportation of nuclear devices to avoid confusion should an accident occur with the nuclear device not in the vehicle.

5. In the event of emergency involving possible damage to the radioactive source:

- * Freeze site, stop any vehicles involved with contact with the gauge.
- * Restrict access to the accident area to 10 feet from the gauge, vehicle and vehicle tracts.
- * Call for assistance. Obtain a survey meter to determine if a "spill" occurred.

* Call: R.S.O. _____

Nearest Public Health Office: _____

Civilian Defense: _____

C.P.N. Factory: 415-687-6472 _____

Other: _____

6. Gauge dismantling involving removal of the source will only be performed by manufacturer.

7. Leak tests will be performed every 6 months or one year depending on state/federal requirements, using a CPN model A-401197 leak test kit.

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