

FORM NRC-313 I (3-80) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION  1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i> <div style="text-align: right; font-size: 1.5em;">30-17864</div>	
<b>APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL</b>		X	a. NEW LICENSE
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.			b. AMENDMENT TO: LICENSE NUMBER <div style="text-align: right; font-size: 1.5em;">03120</div>
			c. RENEWAL OF: LICENSE NUMBER <div style="text-align: right; font-size: 1.5em;">L &amp; L 19549</div>
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i>  Kasper Associates, Inc.  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (203) 579-1902		3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION  Om P. Mehta  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (203) 579-1902	
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i> <i>(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)</i> 765 Fairfield Avenue, P.O. Box 1963 Bridgeport, CT 06601		5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i> 765 Fairfield Avenue, P.O. Box 1963 Bridgeport, CT 06601; and at temporary job site throughout NRC jurisdiction	
(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 <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>			
FULL NAME		TITLE	
a. Arthur Gruhn		Chief Inspector	
b. Antonio Loffredo		Inspector	
c.			
7. RADIATION PROTECTION OFFICER  Om P. Mehta		Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.	
8. LICENSED MATERIAL			
LINE NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i>
	A	B	C
(1)	CS 137	Encapsulated Sealed Source	Campbell Pacific CPN 131
(2)	Am 241-BE	Encapsulated Sealed Source	Campbell Pacific CPN 131
(3)	Applicant: 4578 Check No. 8/10/80 Amount: Fee Category Type of Fee: Application Date Check Rec'd: 10/13/80 Received By: BROWN		
DESCRIBE USE OF LICENSED MATERIAL E			
(1)	To be used in CPN MC series moisture/density gauges.		
(2)			
(3)			
(4)			

RECEIVED BY LFMB  
 Date: 10/13/80  
 Log: OCT PG 6A.C.  
 By: BROWN  
 Orig. To: .....  
 Action Compl. 10/16/80

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### 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)	Moisture Density Gauge	Campbell Pacific Nuclear	MC Series
(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)	N/A					
(2)						
(3)						
(4)						

### 11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY  N/A	<input type="checkbox"/> b. CALIBRATED BY APPLICANT <i>Attach a separate sheet describing method, frequency and standards used for calibrating instruments.</i>  N/A
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### 12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
<input checked="" type="checkbox"/> (1) FILM BADGE  <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)  <input type="checkbox"/> (3) OTHER (Specify): _____ _____ _____	Searle Health Physics Services Unit of Searle Medical Products 2000 Nuclear Drive DesPlaines, IL 60018	<input checked="" type="checkbox"/> MONTHLY  <input type="checkbox"/> QUARTERLY  <input type="checkbox"/> OTHER (Specify): _____ _____ _____

### 13. FACILITIES AND EQUIPMENT (Check where 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. Sketch building storage
- ☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
- ☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

### 14. WASTE DISPOSAL

- a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED  
Source will be returned to manufacturer.
- 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.

See Attached

## 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)

\$110.00

(1) LICENSE FEE CATEGORY: 3.L

(2) LICENSE FEE ENCLOSED: \$ 110

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

Om P. Mehta

d. TITLE

First Vice President

e. DATE

September 24, 1980

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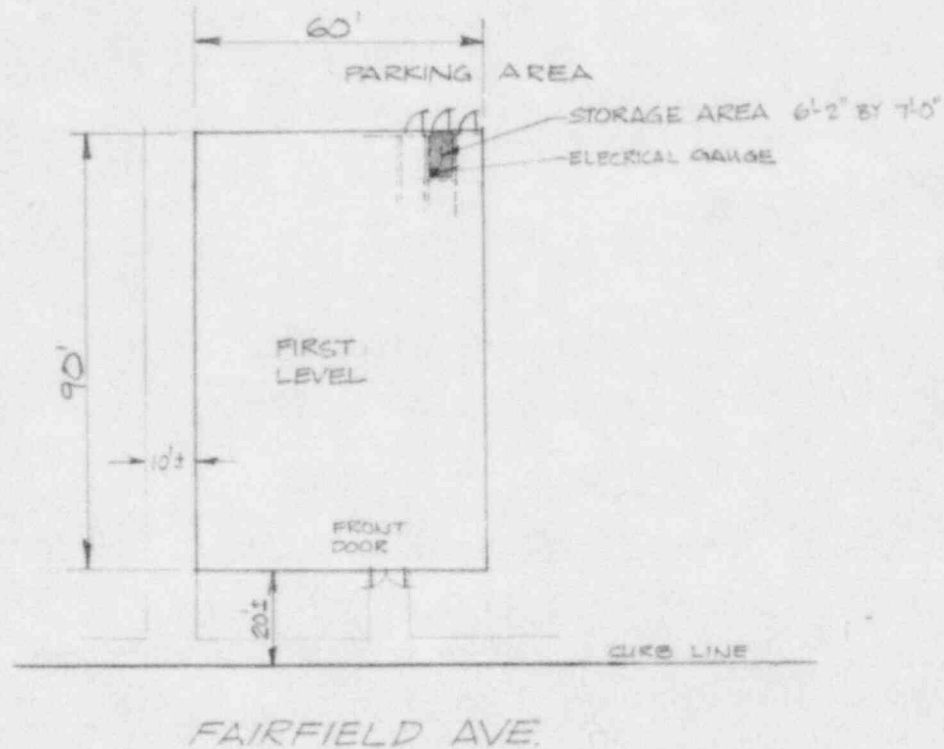


# KASPER ASSOCIATES, Inc.

Engineers, Surveyors, Planners

P. O. Box 1963 • 765 Fairfield Avenue • Bridgeport, Ct. 06601

Tel. (203) 579-1902



SCALE 1" = 40'

Concrete floor, block wall fully enclosed area with one door to the parking area.

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Affiliates:

J&D Kasper & Associates (203) 579-1902

Kasper-Ryan Associates (203) 748-2623

An Equal Opportunity Employer



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## ITEM 15 - ATTACHMENT FOR LICENSE APPLICATION

THIS ATTACHMENT IS PART OF THE LICENSE APPLICATION SUBMITTED BY:

Kasper Associates, Inc.  
765 Fairfield Avenue  
P. O. Box 1963  
Bridgeport, CT 06601

### ITEM 15 RADIATION PROTECTION PROGRAM:

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 together with the calibration curves at all times.

1. When not in field use, the gauge will be securely stored in its container and in the permanent nuclear storage facility designated (sketch attached).
2. When not in use, the source position will be kept located in the safe position.
3. Keys to the permanent storage area will be made available only to the named users and the radiation safety officer.
4. All users will carry their film badges with them when using or transporting 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.

5. No personnel will transport or use the nuclear gauges unless the individual has been approved by the radiological safety officer and the requirements of these procedures are met.
6. The Portaprobe will be securely restrained in vehicles during transportation to prevent theft while the vehicle is unattended or damaged 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.

The equipment, in its container, may be transported by motor vehicle under the "YELLOW II" label without placarding the vehicle as required by 49 CFR 177.823.

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ITEM 15 (Continued)

7. 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.
8. All unauthorized persons will be kept out of the operating area. The suggested distance is 15 feet. The general public must not be unnecessarily exposed to radiation.
9. In the event of an emergency involving possible damage to, or leak of, the radioactive source, the following procedures will be immediately initiated:
  - (a) In the event of physical damage to gauge, a 10-foot area of exclusion surrounding the gauge will be maintained.
  - (b) Freeze site area, stop and hold any vehicles involved in contact with the gauge.
  - (c) Call for Assistance\*, obtain a survey meter to determine if a "spill" has occurred.

\* EMERGENCY NUMBERS

RADIATION SAFETY OFFICER	Om Mehta	203-268-2150 (home) 203-579-1902 (office)
NRC REGIONAL OFFICE		301-492-7000
CAMPBELL PACIFIC NUCLEAR	Factory	415-687-6472 (if necessary)
NEAREST PUBLIC HEALTH OFFICE	Connecticut	203-358-4399 (if necessary)
NEAREST CIVILIAN DEFENSE	Connecticut	203-358-4454
LOCAL POLICE OR FIRE DEPARTMENT		If Necessary

- (d) The above named will also be notified by phone immediately to report the loss or theft of any sealed source.
10. The Radiation Protection Officer, (RSO), the named individual reporting to management on radiation safety matters will be responsible for the following:
    - (a) The safe use of the gauges.
    - (b) Assure compliance with the requirements of Title 10 CRF Parts 19, 20, 30, or applicable state regulations, and all applicable US DOT regulations.
    - (c) Assure byproduct materials possessed under the license are in conformity to materials listed on the license.



ITEM 15 (Continued)

- (d) Assure that use of devices (particularly in the field) is only by persons named as users under the license or persons who have completed acceptable training.
  - (e) Assure all users wear personnel monitoring (when required) while using gauges.
  - (f) Assure gauges are properly secured against unauthorized removal at all times.
  - (g) To serve as point of contact and give assistance in case of emergency; to insure all proper authorities are notified promptly in case of accidents.
  - (h) Assure that terms conditions of license are met such as:
    - (1) Periodic leak tests are performed;
    - (2) All required records are kept and reviewed periodically for compliance with regulations-these include source certificate, leak test records, personnel exposure records, and transfer of radioactive materials.
11. Perform Leak Testing as required using the Campbell Pacific Leak Test Kit #TD-11B. See Attached.

ITEM 16

The resumes for the individuals named in Items 6 and 7 are enclosed herewith. The training taken by Mr. Arthur Gruhn and Antonio Loffredo are indicated on their resumes. Also the named individuals will be taking the training course specified by the manufacturer representative of Campbell Pacific Nuclear Corp. Such training will include:

- (a) Principles and practices of radiation protection.
- (b) Radioactivity measurements, standardization, and monitoring techniques and instruments.
- (c) Mathematics and calculations basic to the use and measurement of radioactivity.
- (d) Biological effects of radiation.

PROFESSIONAL AND NUCLEAR DENSITY EXPERIENCE

Arthur W. Gruhn

Mr. Gruhn's professional experience covers 12 years in the construction field. Mr. Gruhn served two years as an officer in a construction battallion with the Army Corps of Engineers in the U.S. and Vietnam. After his military service, Mr. Gruhn was employed by the Connecticut Department of Transportation as a Chief Inspector on numerous highway projects for a period of four years. Following his service with the State of Connecticut, Mr. Gruhn joined the firm of Cahn Engineers in Wallingford, Connecticut. From 1974 to 1976 Mr. Gruhn was the Resident Engineer on a large highway project being constructed by the State of Connecticut. Upon completion of the project, Mr. Gruhn assumed the duties of Construction Manager responsible for the construction inspection and administration of Cahn's projects in Connecticut and Westchester County, New York. Mr. Gruhn recently joined Kasper Associates as Chief Inspector and is currently responsible for the construction surveillance, administration and testing on a Connecticut Department of Transportation project in Stamford, Connecticut. Mr. Gruhn holds a Bachelor of Science Degree in Civil Engineering, a Masters Degree in Public Administration, and is registered as a Professional Engineers in four states (Connecticut, New York, New Jersey, and Pennsylvania).

Mr. Gruhn has approximately six years experience in the use, storage and care of nuclear density equipment. He received formal radiation training during his service with the Army Corps of Engineers (Engineer Officer Basic Course) as well as some training from the nuclear gauge manufacturer and State of Connecticut. While employed as Resident Engineer at Cahn Engineers, Mr. Gruhn was responsible for the storage, care and use of a Campbell Pacific BR-1 density gauge at the construction site. As Construction Manager it was Mr. Gruhn's responsibility to ensure that the necessary staff training was provided as needed by the firm's Radiation Safety Officer. During the past six years, Mr. Gruhn has performed numerous tests utilizing both the Campbell Pacific Model BR-1 and MC-2 moisture density gauges.

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PROFESSIONAL AND NUCLEAR DENSITY EXPERIENCE

Antonio J. Loffredo

Mr. Loffredo has been employed in the construction field for the past five years during which time he has gained varied experience in many phases of construction. From 1975 to 1979 Mr. Loffredo was employed by 3-B Equipment Corporation of White Plains, New York. During this time Mr. Loffredo was responsible for project layout, project supervision, estimating and cost documentation on site improvement, utility, road, structure, and landscaping projects. From February 1979 to February 1980 Mr. Loffredo was employed by Cahn Engineers of Wallingford, Connecticut during which time he performed inspection duties and compaction testing on a New York State Department of Transportation project in Westchester County, New York. For the past eight months Mr. Loffredo has been employed by Kasper Associates as resident inspector on numerous construction projects. In addition, Mr. Loffredo has been involved in preparing cost estimates and designs for road and bridge projects. Mr. Loffredo is currently working on obtaining a Bachelor of Science Degree in Civil Engineering.

Mr. Loffredo has had approximately eight months experience in the use of nuclear density equipment. While employed by Cahn Engineers, Mr. Loffredo received in-house training in the use of the Campbell Pacific Model MC-2 nuclear density gauge and radiation safety. In addition, Mr. Loffredo performed many compaction tests with this equipment under the supervision of licensed personnel.

OM P. MEHTA ,

First Vice President

EDUCATION/REGISTRATION

BSCE Delhi University, India 1963

Graduate Studies, University of New Haven, Connecticut

Registered Professional Engineer in Connecticut, New York, New Jersey and Rhode Island

EXPERIENCE

Fifteen (15) years of experience in the design and construction of public works facilities in the United States, Europe and India.

Prior to joining Kasper Associates, Mr. Mehta was responsible for the design and construction of a sewage treatment plant in Bracknell, England; highways, roads and utilities including water mains, booster pump stations in England; multi-story reinforced concrete building structure in Delhi, India; bridges and roads in Uttarparadesh, India; roads, utilities, water main designs, and recreational facilities in New Britain, Connecticut; Hudson, Ogdensburg and Watervliet, New York; and subsurface soil investigations for two sewage treatment plants in New Haven, along the Connecticut coast of Long Island Sound. He was involved in designs of sanitary landfill sites in Groton, Connecticut; Hudson, New York and Elkland, Pennsylvania. As part of his studies for a Master's Degree at the University of New Haven, he completed a thesis on a landfill project for Bethel, Connecticut.

As a First Vice President of the firm, he has been the Chief Engineer responsible for the overall design activities. Among the projects under his supervision are Bridgeport Facilities Plan; the modifications to the two Bridgeport Sewage Treatment Plants, Ryan's Lane Pumping Station and Sewer in Stratford, Connecticut and Congress Plaza Sewer Separation, Bridgeport, Connecticut.

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OM P. MEHTA (continued)

Experience on more than 100 million dollars of such projects including: urban renewal, stormwater management and retention studies, subdivisions, industrial and commercial parks, preparation of construction documents for bidding and construction administration of projects to completion and acceptance.

These projects and his prior experience have enabled him to establish a close working relationship with local and State commissions, agencies and various Federal departments. He is thoroughly familiar with requirements concerning the technical aspects of the above projects.

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