

DML:IB:JCM (01275)

APR 16 1968

Puerto Rico Testing
Services, Inc.
478 Ing. Jose A. Canals Street
Roosevelt, Hato Rey, Puerto Rico 00919

Attention: Mr. Efrahim Muratti
President

Gentlemen:

In order to be authorized to perform industrial radiography under AEC regulations, it will be necessary for you to meet the requirements of Title 10, Code of Federal Regulations, Part 34 (10 CFR 34). Therefore, you should submit the following additional information to aid us in completing our evaluation of your request:

1. A complete description of the operating and emergency procedures to be used in conducting your radiographic operations. (See Sections 34.11(c) and 34.32 of 10 CFR 34.)
2. A description of the internal inspection system or other management control which you will be using in your operations. (See Section 34.11(d) of 10 CFR 34.)
3. A description of the overall organizational structure. (See Section 34.11(e) of 10 CFR 34.)
4. A more complete description of the training and experience of Messrs. Marcelino Torres and Fernando Sosa. (See Section 1.D of the enclosed AEC Licensing Guide on Industrial Radiography.)

When describing the experience of these men in the use of radioisotopes for radiography, you should include the inclusive dates during which the experience was obtained, the radioisotopes used, the activities of each isotope, the type of exposure device (make and model number where possible), the position (radiographer or radiographer's assistant) in which the experience was gained and the name and address and/or AEC license number of the organization at which the experience was gained.

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5. The make and model number of the radiation detection instruments which you will use. Please note that under the conditions of Section 34.24 of 10 CFR 34 such instruments must have a range such that 2 mr/hr through 1 r/hr can be measured and each radiation survey instrument must be calibrated at intervals not to exceed 3 months.

Enclosed are application forms AEC-313R which may be used for submitting this additional information.

Very truly yours,

James C. Malero
Isotopes Branch
Division of Materials
Licensing

Enclosures:

1. AEC-313R
2. 10 CFR 20, 30 & 34
3. Industrial Radiography
Licensing Guide

bcc: Standard Branch Distribution
Compliance, R& Region II ←

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U.S. DEPARTMENT OF ENERGY
OFFICE OF COMPLIANCE II
AD-111

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. 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.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc.)

Puerto Rico Testing Services Inc.
478 Ing. Jose A. Canals St.
Roosevelt, Hato Rey, Puerto Rico

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a).)

Mobile Laboratory to be used at
different job sites.

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Industrial Radiography

3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)

None

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.)

Marcelino Torres, M.T.
Senior Radiographer

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.)

Fernando Sosa,
Mechanical Engineer

6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)

Iridium 192

(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLCURIES 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.)

(1) One Iridium 192 sealed source 10 curies. Picker
TO-532 Portable Industrial Unit Cat. 530230 with
disconnectable control cables and storage chest.

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.)

Industrial Radiography

9202240 427 01275

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

B. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	Picker X-Ray Corporation Cleveland, Ohio (Industrial Div.)	3 wks.	<u>Yes</u> No	<u>Yes</u> No
b. Radioactivity measurement standardization and monitoring techniques and instruments	Same as above	3 wks.	<u>Yes</u> No	<u>Yes</u> No
c. Mathematics and calculations basic to the use and measurement of radioactivity	Same as above	3 wks.	<u>Yes</u> No	<u>Yes</u> No
d. Biological effects of radiation	Same as above	3 wks.	<u>Yes</u> No	<u>Yes</u> 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
Co-60 A.E.C. II CIVIL ITL, GA. MAR 23 1968	10 Curies	P. R. Water Resources Authority (P.R.W.R.A.) Engineering Department	1950-1968	Industrial Testing

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

TYPE OF INSTRUMENTS (List make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
GAMMA SURVEY METER	2	Beta-Gamma	.01	MICA 2-4 mg/cm ²	Monitoring Surveying

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

Atomic Energy Commission, Puerto Rico- One Curie Standard Source

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

GARDRAY Film Badges - Gardray Film Badge Service-Box 117-Burlington, Mass. 01803

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

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.
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.

Date March 11, 1968

Puerto Rico Testing Services, Inc.

Applicant named in item 1

By: *Rafael A. Lora*
Vice-President

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.

13. Facilities and Equipment:

Standard remote handling and container equipment for this type and size of radioactive capsule (Iridium 192) for use only in case of emergency.

Standard storage chest supplied by Picker X-Ray Corporation (Cat. 530213) for use with Picker Iridium Unit TO-532.

14. Radiation Protection Program:

Unit will be under the continuous supervision and control of Mr. Marcelino Torres and Fernando Sosa, Mechanical Engineer, of Puerto Rico Testing Services. Leak testing procedures and radiation survey, servicing, maintenance and repair will be performed by Mr. Marcelino Torres. Please refer to enclosed documents.

15. Waste Disposal:

Used Iridium capsules will always be returned to Picker X-Ray Corporation for disposal by them (Technical Operations, Burlington, Mass. a subsidiary of Picker X-Ray Corporation), at the time a new Iridium capsule is sent by Picker for replacement of old capsule.