

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

a. NEW LICENSE ☒ X

b. AMENDMENT TO:
LICENSE NUMBER

c. RENEWAL OF:
LICENSE NUMBER

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.

2. APPLICANT'S NAME (Institution, firm, person, etc.)
PUERTO RICO RACING SPORT ADMINISTRATION

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
809-765-2005

3. NAME AND TITLE OF PERSON TO BE CONTACTED
REGARDING THIS APPLICATION
REINALDO TORRES RIVERA - CHIEF CHEMIST

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION
768-2005 - EXT. 243

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)
(Address to which NRC correspondence, notices, bulletins, etc., should be sent.) P.O. Box 29156- 65TH. INF. STA.
RIO PIEDRAS, PUERTO RICO 00929

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED
(Include Zip Code)
768-2005 - EXT 243
RAFAEL ARCELAY ST. AND 65 INF. AVENUE
RIO PIEDRAS, PUERTO RICO, 00929

(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

(See Items 16 and 17 for required training and experience of each individual named below)

	FULL NAME	TITLE
a.	REINALDO TORRES RIVERA	CHIEF CHEMIST
b.	ONEIDA RIVERA DE JESUS	CHEMIST
c.	BENJAMIN SANTANA FRED	CHEMIST

7. RADIATION PROTECTION OFFICER

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

L I N E NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) C	MAXIMUM NUMBER OF MILLCURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1)	³ H	3H LABELLED FENTANYL SOLUTION		3 KITS, 6 MICROCURIES EA
(2)	³ H	SOLUTION IN A SEALED VIAL	BECKMAN INST.	0.049 MICROCURIES
(3)	¹⁴ C	SOLUTION IN A SEALED VIAL	BECKMAN INSTRUMENTS	0.014 MICROCURIES
(4)	¹³⁷ Cs	SEALED SOURCE	BECKMAN SCINTILLATION SYSTEM LS 6800	40 MICROCURIES

DESCRIBE USE OF LICENSED MATERIAL
E

(1)	RADIOIMMUNOASSAYS TESTS FOR THE DETECTION OF FENTANYL IN BODY FLUIDS.
(2)	SEALED SOURCES IN INSTRUMENT MENTIONED IN 8.
(3)	8903140265 880226 REG2 LIC30 52-21220-01 PNU
(4)	

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)	C14 & H ₃ IN GLASS VIALS	BECKMAN INSTRUMENTS	-----
(2)	Cs137 IN THE INSTRUMENT	BECKMAN INSTRUMENTS	BECKMAN LS 6800
(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)	LIQUID SCINT. COUNTER	BECKMAN	LS 6800	ONE	BETA	.1 TO 50,000CPM
(2)	GEIGER METER	ATOMIC PRODUCTS	PUG-1	ONE	ALPHA, BETA, GAMMA	0 TO 50,000 CPM
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☒ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

 IF THE DETECTOR SENSITIVITY DECREASE,
THE DETECTOR IS CHANGE BY MANUFACTURER

☐ b. CALIBRATED BY APPLICANT

 Attach a separate sheet describing method, frequency and standards
used for calibrating instruments.

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
☐ (1) FILM BADGE ☐ (2) THERMOLUMINESCENCE DOSIMETER (TLD) ☐ (3) OTHER (Specify): <u>N/A</u>		☐ MONTHLY ☐ QUARTERLY ☐ 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.
☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

N/A

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

No

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. AS PER INSTRUCTIONS OF ROCHE RIA KITS, USED CONTENTS OF VIALS (LESS THAN 0.05 MICROCURIES EA) ARE GOING TO BE DISCHARGE INTO THE SANITARY SEWAGE SYSTEM, WITH WATER FLOW FOR ONE HOUR AFTERWARDS. THE EMPTY, RINSED VIALS WITH LABELS REMOVED ARE GOING TO BE DISCARDED IN THE TRASH.

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. ATTACHED
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.
 1. REINALDO TORRES RIVERA - ATTACHED
 2. ONEIDA RIVERA - NO EXPERIENCE
 3. BENJAMIN SANTANA - NO EXPERIENCE

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)

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

Juan A. Alves

(1) LICENSE FEE CATEGORY:

d. TITLE

Racing Administrator

(2) LICENSE FEE ENCLOSED: \$

e. DATE

November 16, 1982

15- RADIATION PROTECTION PROGRAM WE DON'T HAVE A RADIATION PROTECTION PROGRAM

MAY BE WE WILL BE SUPERVICED BY THE RADIOLOGICAL HEALT UNIT OF THE PUERTO
RICO DEPARTMENT OF HEALT.



STATE OF FLORIDA

DEPARTMENT OF BUSINESS REGULATION
THE JOHNS BUILDING
725 SOUTH BRONOUGH STREET
TALLAHASSEE, FLORIDA 32301-8164

Bob Graham, Governor
Gary R. Rutledge, Secretary
Robert M. Smith, Jr., Director

REPLY TO
Division of Pari-Mutuel Wagering
1350 N.W. 12th Avenue, Room 332
Miami, Florida 33136-2169
Phone (305) 325-3475

11 June 1982

TO WHOM IT MAY CONCERN:

This is to certify that Reinaldo Torres Rivera, Chief Chemist - Racing Sport Administration of the Commonwealth of Puerto Rico, attended the Division Laboratory daily from 7 June through 11 June. During this time, he studied and participated in the Laboratory's procedures, routine and radioimmuno assay.

A handwritten signature in cursive script, reading "Dr. Wayne C. Duer".

Dr. Wayne C. Duer, Chief
Bureau of Laboratory Services

WCD:ccb

OFFICE OF THE SECRETARY

DIVISION OF HOTELS & RESTAURANTS

DIVISION OF ALCOHOLIC BEVERAGES . TOBACCO

DIVISION OF FLORIDA LAND SALES & CONDOMINIUMS

DIVISION OF PARI-MUTUEL WAGERING

16 - FORMAL TRAINING IN RADIATION SAFETY

REINALDO TORRES

B.S. IN CHEMISTRY FROM THE UNIVERSITY OF PUERTO RICO - 1961

M.E. (CHEMISTRY) FROM THE UNIVERSITY OF PUERTO RICO 1973

JURIS DOCTOR FROM THE INTERAMERICAN UNIVERSITY OF PUERTO RICO 1979

HE PARTICIPATED IN A SEMINAR GIVEN BY PERSONAL FROM THE RADIOLOGICAL HEALTH UNIT OR THE PUERTO RICO DEPARTMENT O HEALTH, IN JUNE 24-25, 1982. THIS SEMINAL COVERED AL THE AREA MENTIONED IN 16. SPECIFICATION OF THE SEMINAL ARE ATTACH.

HE ATTENDED THE DIVISION OF PARI-MUTUEL WAGERING LABORATORY DAILY FROM JUNE 7 TO JUNE 11, 1982. DURING THIS TIME HE STUDIE AND PARTICIPATED IN RADIOIMMUNO ASSAY TEST.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
DEPARTAMENTO DE SALUD
SECRETARIA AUXILIAR PARA SALUD AMBIENTAL
PROGRAMA SALUD RADIOLOGICA



confiere a

REINALDO TORRES RIVERA

este

CERTIFICADO
COMO CONSTANCIA DE HABER PARTICIPADO EN UN
SEMINARIO EN SALUD Y PROTECCION RADIOLOGICA.
EN TESTIMONIO POR LO CUAL SE EXPIDE ESTE,

HOY 25 DE JUNIO 19 82

EN SAN JUAN PUERTO RICO


DIRECTOR
PROGRAMA SALUD RADIOLOGICA


SECRETARIO AUXILIAR
ALUD AMBIENTAL

16- FORMAL TRAINING IN RADIATION SAFETY

ONEIDA RIVERA

GRADUATED FROM THE CATHOLIC UNIVERSITY OF PUERTO RICO IN 1963.

BACHELOR IN SCIENCE WITH CHEMISTRY AS MAJOR MATTER.

SHE IS BEINGWORKING FOR THE PUERTO RICO RACING SPORT ADMINISTRATION SINCE 1964.

SHE PARTICIPATED IN A TWO DAYS SEMINAR WHICH COVERED ALL THE AREA NAMED IN 16.

THIS SEMINAR WAS GIVEN BY PERSONAL FROM THE RADIOLOGICAL HEALTH UNIT OF THE PUERTO RICO DEPARTMENT OF HEALTH, IN JUNE 24, 25, 1982.

THE PROGRAM OF THE SEMINAL (ORIGINAL AND ENGLISH TRANSLATION) AND

CERTIFICATE OF ATTENDANCE IS ALSO ATTACH.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
DEPARTAMENTO DE SALUD
SECRETARIA AUXILIAR PARA SALUD AMBIENTAL
PROGRAMA SALUD RADIOLOGICA



confiere a

ONEIDA RIVERA DE JESUS

este

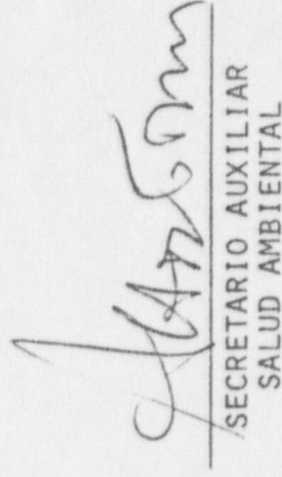
CERTIFICADO

COMO CONSTANCIA DE HABER PARTICIPADO EN UN
SEMINARIO EN SALUD Y PROTECCION RADIOLOGICA.
EN TESTIMONIO POR LO CUAL SE EXPIDE ESTE,

HOY 25 DE JUNIO 1982

EN SAN JUAN PUERTO RICO


DIRECTOR
PROGRAMA SALUD RADIOLOGICA


SECRETARIO AUXILIAR
SALUD AMBIENTAL

16. FORMAL TRAINING IN RADIATION SAFETY

BENJAMIN SANTANA

GRADUATED FROM THE INTERAMERICAN UNIVERSITY OF PUERTO RICO IN 1979.

BACHELOR IN SCIENCE WITH CHEMISTRY AS MAJOR MATTER.

HE IS BEING WORKING FOR THE PUERTO RICO RACING SPORT ADMINISTRATION SINCE 1980.

HE PARTICIPATED IN A TWO DAYS SEMINAR WHICH COVERED ALL THE AREA NAMED IN 16.

THIS SEMINAR WAS GIVEN BY PERSONAL FROM THE RADIOLOGICAL HEALTH UNIT OF THE PUERTO RICO DEPARTMENT OF HEALTH, IN JUNE 24,25, 1982.

THE PROGRAM OF THE SEMINAL (ORIGINAL AND ENGLISH TRANSLATION) AND

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ESTADO LIBRE ASOCIADO DE PUERTO RICO
DEPARTAMENTO DE SALUD
SECRETARIA AUXILIAR PARA SALUD AMBIENTAL
PROGRAMA SALUD RADIOLOGICA



confiere a

BENJAMIN SANTANA FRED

este

CERTIFICADO

COMO CONSTANCIA DE HABER PARTICIPADO EN UN

SEMINARIO EN SALUD Y PROTECCION RADIOLOGICA.

EN TESTIMONIO POR LO CUAL SE EXPIDE ESTE,

HOY 25 DE JUNIO 19 82

EN SAN JUAN PUERTO RICO


DIRECTOR
PROGRAMA SALUD RADIOLOGICA


SECRETARIO AUXILIAR
SALUD AMBIENTAL

RADIOLOGICAL PROTECTION SEMINAR
FOR SOME PERSONS FROM THE PUERTO RICO
RACING SPORT ADMINISTRATION

JUNE 24 AND 25, 1982

TIME	THEME	LECTURER
FRIDAY 25		
9:00 - 9:40	HALF LIFE CONCEPT AND DESINTEGRATION CONSTANT	MR. JOSÉ PÉREZ BOBONIS
9:40 - 9:50	COFFEE BREAK	
9:50 - 11:45	PRACTICE EXERCISES	STAFF
11:45 - 12:00	NUCLEAR REACTION	MR. JUAN A. GIL
12:00 - 1:00	LUNCH	
1:00 - 1:20	THE USE OF RADIOISOTOPES	MR. JOSÉ PÉREZ BOBONIS
1:20 - 1:35	RADIATION DECONTAMINATION	MR. JOSÉ PÉREZ BOBONIS
1:35 - 2:15	PICTURE "RADIOACTIVE FALLOUTS AND SHELTER"	STAFF
2:15 - 2:30	WASTE DISPOSAL REGLAMENTATION	MR. DAVID SALDAÑA
2:30 - 2:45	ANSWERING QUESTION	STAFF

RADIOLOGICAL PROTECTION SEMINAR
FOR SOME PERSONS FROM THE PUERTO RICO
RACING SPORT ADMINISTRATION

JUNE 24 AND 25, 1982

TIME	THEME	LECTURE
THURSDAY 24		
9:00 - 9:05	WELCOME	MR. DAVID SALDAÑA
9:05 - 9:25	RADIATION SOURCES	MR. JUAN A. GIL
9:25 - 10:05	ATOMIC STRUCTURE AND RADIOACTIVITY	MR. JOSÉ PÉREZ BOBONIS
10:05 - 10:15	COFFEE BREAK	
10:15 - 10:35	MOVIE PICTURE "A IS FOR ATOM"	STAFF
10:35 - 11:30	BIOLOGICAL EFFECTS OF IONIZING RADIATION	MR. JUAN A. GIL
11:30 - 12:00	PICTURE "RADIATION PHYSICIAN AND PATIENT"	STAFF
12:00 - 1:00	LUNCH	
1:20 - 1:45	MESURING UNITS A) ROENTGEN B) RAD C) REM	MR. DAVID SALDAÑA
1:45 - 2:00	COFFEE BREAK	
2:00 - 2:25	BASIC FUNDAMENTALS OF RADIATION PROTECTION A) TIME B) DISTANCE C) INVERSE SQUARED RULE	MR. DAVID SALDAÑA
2:25 - 2:40	INSTRUMENTS FOR DETECTION	MR. JOSE PEREZ BOBONIS
2:40 - 3:10	PICTURE "RADIATION PROTECTION IN NUCLEAR MEDICINE"	STAFF
3:10 - 3:20	ANSERING QUESTIONS	STAFF

SEMINARIO SOBRE PROTECCION RADIOLOGICA
PARA PERSONAL DE LA ADMINISTRACION DEL DEPORTE HIPICO

24-25 DE JUNIO 1982

DIA -HORA	TEMA	CONFERENCIANTE
JUEVES 24		
9:00-9:05	Bienvenida	Sr. David Saldaña
9:05-9:25	Fuentes de Exposición a la Radiación	Sr. Juan A. Gil
9:25-10:05	Estructura Atómica y Radiactividad	Sr. José Pérez Bobonis
10:05-10:15	Receso	
10:15-10:35	Película "A is for Atom"	Staff
10:35-11:30	Efectos Biológicos de la Radiación Ionizante	Sr. Juan A. Gil
11:30-12:00	Película "Radiation Physician and Patient"	Staff
12:00-1:00	Hora de Almuerzo	
1:20-1:45	Unidades de Medición a) Roentgen b) Rad c) Rem	Sr. David Saldaña
1:45-2:00	Receso	
2:00-2:25	Principios Básicos de Protección Radio- lógica a) Tiempo b) Distancia c) Ley del Inverso al Cuadrado	Sr. David Saldaña
2:25-2:40	Instrumentos de Detección	Sr. José Pérez Bobonis
2:40-3:10	Película "Radiation Protection in Nuclear Medicine"	Staff
3:10-3:20	Sección de Preguntas y Respuestas	Staff

DIA - HORA	TEMA	CONFERENCIANTE
	VIERNES 25	
9:00 - 9:40	Concepto de Media Vida y Constante de Desintegración	Sr. José Pérez Bobonis
9:40-9:50	Receso	
9:50 - 11:45	Ejercicios de Práctica	Staff
11:45 - 12:00	Reacciones Nucleares	Sr. Juan A. Gil Bórgos
12:00 - 1:00	Hora de Almuerzo	
1:00 - 1:20	Usos de Radioisótopos	Sr. José Pérez Bobonis
1:20 - 1:35	Decontaminación Radiactiva	Sr. José Pérez Bobonis
1:35 - 2:15	Película "Radioactive Fallout and Shelter"	Staff
2:15 - 2:30	Desechos de Desperdicios y Reglamentación	Sr. David Saldaña
2:30 - 2:45	Sección de Preguntas y Respuestas	Staff