

30-04696



Two Oak Park, Bedford, MA 01730
617/275-0004

June 28, 1988

Nuclear Regulatory Commission, Region I
Materials Licensing
475 Allendale Road
King of Prussia, PA 19406

Log	Just. TV
Remitter	
Check No.	no. 047720
Amount	\$ 120
Fee Category	3B
Type of Fee	A MD
Date Check Rec'd.	7/13/88
Date Completed	7/12/88
By license	J. Kimberly
conditions of	

Please accept this letter as application for amendment to our license, 20-11124-001. We wish to make three changes to the current conditions of our license as follows:

- posses a 10 mCi ¹³⁷Cs sealed source
- perform calibration of our survey instruments in-house
- delete the names Eric Kauffman and Christine Aubin from the license and add instead the names Janet Shloss and Dana Torrey.

The sealed source is model C-316B manufactured by E.I. DuPont, Billerica, MA 01862. It will be used in conjunction with our instrument calibration program. Procedures used in calibration will be designed to minimize the radiation exposure to the technician performing the calibrations. The technician's exposure to radiation will be measured by a film badge. Wipe tests of the sealed source will be performed every six months; results of these tests will be recorded and the records kept in our files. The source will be under the control of the radiation safety officer and kept locked when not in use. It will be located in area shown on the accompanying drawing 4 - the original of which was submitted with our current renewal application.

Calibrations will be performed by a person trained by Mr. Edward Karaian, who currently performs our instrument calibrations on a contract basis, or by another person qualified by training and experience to perform the required procedures. An outline of the calibration procedure follows:

1. Perform mechanical check of the instrument.
2. Check the detector cable.
3. Perform high voltage measurement for the detector.
4. Perform electronic check of the instrument. Use an electronic pulser where appropriate.

RECEIVED-REGION I
JUN 30 1988

9001230273 881020
REG1 LIC30 PDR
20-11124-01

"OFFICIAL RECORD COPY" MLT/A

109161
6-30-88

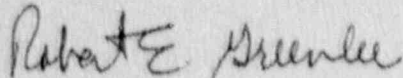
June 28, 1988

5. Perform gamma calibration using the 10 mCi ^{137}Cs sealed source. Measure the radiation level at two distances for each scale to produce readings of approximately 1/3 and 2/3 of full scale.
6. Affix calibration information to the instrument and prepare a certificate to be filed in the instrument calibration file.
7. Perform beta and ^{125}I calibrations on instruments which will be used for monitoring radiation from beta and ^{125}I sources.
8. Adjust standard sources for decay where required.
9. Refer to NRC Regulatory Guide 10.8, Appendix D for further guidance, if required.

Brief C.V.'s showing training for and experience in handling radioisotopes for Ms. Shloss and Mr. Torrey are attached.

A check in the amount of \$120 to cover a category 3B amendment is enclosed.

Very truly yours,



Robert E. Greenlee
Radiation Safety Officer

/dt

Enclosures

TRAINING AND EXPERIENCE

Janet Shloss

Item 16 of Form NRC-313

Type of Training	Where Trained	Duration of Training	On the Job	Formal Course
a. Principles and practices of radiation protection.	Harvard Medical School and Boston University	4 hr.		X
b. Radioactivity measurement standardization and monitoring technique and instruments.	" "	7 yr	X	
c. Mathematics and calculations basic to the use and measurement of radioactivity.	" "	7 yr	X	
d. Biological effects of radiation.	" "	7 yr	X	

Item 17 of Form NRC-313 (Experience with Radiation)

Isotope	Max. Amount	Where Experience was Gained	Duration of Experience	Type of Use
^3H	5 mCi	BU Medical School and Collaborative Research Inc.	1975-1988	Bioassays
^{51}Cr	1 mCi	" "	1980-1981	Bioassays
^{14}C	5 mCi	" "	1975-1988	Bioassays

Served as radiation supervisor for Dr. Corwin's laboratory at BU Medical School from 1977-1981.

TRAINING AND EXPERIENCE

Dana Torrey

Item 16 of Form NRC-313

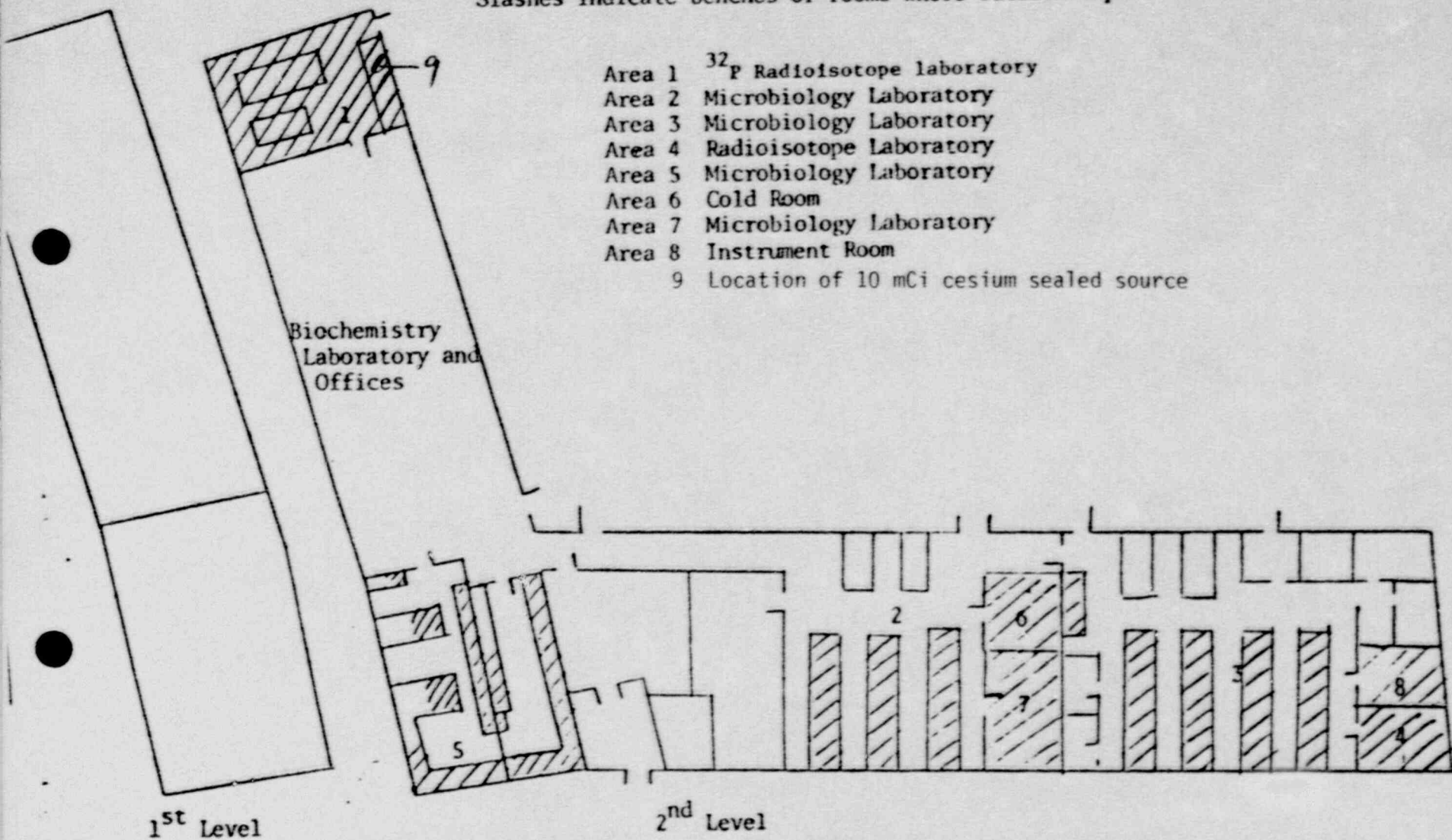
Type of Training	Where Trained	Duration of Training	On the Job	Formal Course
a. Principles and practices of radiation protection.	Dartmouth College	4 hr		X
b. Radioactivity measurement standardization and monitoring technique and instruments.	" "	1.5 yr	X	
c. Mathematics and calculations basic to the use and measurement of radioactivity.	" "	1.5 yr	X	
d. Biological effects of radiation.	" "	1.5 yr	X	

Item 17 of Form NRC-313 (Experience with Radiation)

Isotope	Max. Amount	Where Experience was Gained	Duration of Experience	Type of Use
^{32}P	1 mCi	Dartmouth and Brandeis	3 yr	Molecular biology research
^{35}S	.1 mCi	Collaborative Research	1 yr	DNA sequencing

Slashes indicate benches or rooms where radioisotopes will be used.

- Area 1 ^{32}P Radioisotope laboratory
- Area 2 Microbiology Laboratory
- Area 3 Microbiology Laboratory
- Area 4 Radioisotope Laboratory
- Area 5 Microbiology Laboratory
- Area 6 Cold Room
- Area 7 Microbiology Laboratory
- Area 8 Instrument Room
- 9 Location of 10 mCi cesium sealed source



Collaborative Research, Inc. Facilities at 1365 Main Street, Waltham MA

DRAWING 4



Two Oak Park
Bedford, MA 01730
(617) 275-0004

PURCHASE ORDER NO. 3036	CHANGE ORDER NO.	PAGE
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SHIP TO

113572

Tax Exempt MA 42-297-484

678200

VENDOR NUCLEAR REGULATORY COMMISSION
OFFICE OF MATERIAL SAFETY
U.S. NUCLEAR REG.
WASHINGTON, D.C. 20558

BILL TO

PHONE

PURCHASE ORDER NUMBER MUST
APPEAR ON ALL PACKING LISTS AND
INVOICES.

REQUESTOR Bob Greenlee	DELIVER TO Bob Greenlee	PURCHASE ORDER
ORDER DATE 6-20-88	VENDOR CODE	
BUYER JG	TERMS PREPAID	SHIP VIA
F.O.B.	FREIGHT	TAXABLE
NO	E	ACCOUNT NUMBER 100-90-9-7582
		CONFIRM TO

ITEM	PART NUMBER/DESCRIPTION	REV	MSP	DELIVERY DATE	QUANTITY	UOM	UNIT PRICE	EXTENSION
1	AMENDMENT FEE NRC LICENSE #20-11141-01				1		120.00	120.00
<u>CHECK ENCLOSED</u>								

TOTAL ORDER

BUYER *[Signature]*

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03214
STATUS CODE: 0
FEE CATEGORY: 3B
EXP. DATE: 19910430
FEE COMMENTS: ALWAYS

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: COLLABORATIVE RESEARCH, INC.
RECEIVED DATE: 880630
DOCKET NO: 3004696
CONTROL NO.: 109161
LICENSE NO.: 20-11124-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: \$120
CHECK NO.: 047120

3. COMMENTS

SIGNED
DATE

[Signature]
7/1/88

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED / /)

1. FEE CATEGORY AND AMOUNT:

3B \$120

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT _____
RENEWAL _____
LICENSE _____

3. OTHER

SIGNED
DATE

[Signature]
7/3/88