

FIGURE 9-2

EXPERIENCE WITH RADIATION

Form PI-101

Name Joseph Pruett

Isotope	Maximum Amount	Where Experience Was Gained	Duration of Experience	Type of Use
Mo-99	20 Ci	Syncor-St. Louis	Sept. 1, 1981 to June 30, 1983	(Radiopharmacy Medical)
Tc-99m	20 Ci	"	Full time employee	Preparation of radiopharmaceuticals for human use.
Ga-67	60 mCi	"	3,548 hours	
Tl 201	70 mCi	"	"	
Xe-133	2 Ci	"	"	"
I-131	200 mCi	"	"	"
I-123	2 mCi	"	"	"
75-Se	10 mCi	"	"	"
I-125	1.5 mCi	"	"	"
In-111	6 mCi	"	"	"
Yb-169	10 mCi	"	"	"
Cr-51	2 mCi	"	"	"
Cs-137	0.5 mCi	"	"	(for calibration)
Co-57	0.5 mCi	"	"	(for calibration)
Ba-133	0.5 mCi	"	"	(for calibration)

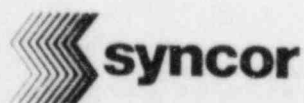

 Item #8
 Date 9/12/83
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FIGURE 9-1
TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

Form PI-100

Name Joseph Pruett

Location of Training	Date(s) of Attendance	Course Title if Applicable	Total Clock Hours of Course	Breakdown of Course Content in Clock Hours*									
				Radiation Physics & Instrumentation		Radiation Protection		Math Pertaining to Radioactivity		Radiation Biology		Radiopharmaceutical Chemistry	
				A	B	A	B	A	B	A	B	A	B
University of Southern California	7-23-83 to 8-31-83	Practicum in Radiopharmacy 625 L (Radiological Safety)	207	50	30	43	15	14	5	15	6	19	15
			207	50	30	43	15	14	5	15	6	19	15
*Column "A" refers to Lecture/Laboratory Course			TOTAL HOURS	(480)		58		19		210		340	
*Column "B" refers to Supervised Laboratory Experience													

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**PRACTICUM IN RADIOPHARMACY
(Radiological Safety Option)**

Schedule of Classes

<u>Date</u>	<u>Time</u>	<u>Field</u>	<u>Topic</u>	<u>Lecturer</u>
7/25	9:00	RnF	Philosophy - Definitions	Dorthalina/Comer
	10:30	PI	The Radiation Safety Program at Syncor International, I	Comer
	13:00	PI	The Radiation Safety Program at Syncor International, II	Comer
7/26	9:00	PI	Radioactivity and Radiation Physics used in Radiopharmacies	Comer
	13:00	RB	Introduction to Radiobiology	Keesee
7/27	9:00	RnF	Principles of Health Physics	Comer
	13:00	RPCh	Radiopharmacy and Radiopharmaceuticals	Keesee
7/28	7:30	PI	Interaction of Radiation with Matter	Audiovisual SNM
	8:15	PI	Radioactive Decay Processes	Audiovisual SNM
	9:00	RnF	Dosimetry and Radiation Protection	Audiovisual SNM
	10:00	RnF	Radiation Hazards: alpha, beta and gamma	Comer
	13:00	PI	Survey Instruments	Dorthalina
	15:00	PI	Calibration of Instruments	Dorthalina
7/29	8:00	RnF	Records	Dorthalina
	9:00	RnF	Personnel Monitors:, Film Badges, TLD's.	Dorthalina
	10:00	RnF	The Radiation Safety Program at Syncor International, III	Comer
	13:00	FI	Operational Characteristics of Nuclear Instrumentation - Laboratory Chase/Rabinowitz. Chapter 3	Wilson, Amarte
	16:00	PI	Lab: Errors in Radn. Meas. Chase/Rabinowitz: Chapter 4,5	Wilson, Amarte
8/1	9:00	PI	Structure of Matter	Audiovisual SNM
	10:00	M	Introduction to Computers	Brechner
	13:00	RnF	References: Radiation Protection	Harwood

<u>Date</u>	<u>Time</u>	<u>Field</u>	<u>Topic</u>	<u>Lecturer</u>
			Guides, NCRP, ICRP	
	14:00	RnP	Title 17, CRCP	Harwood
	16:00	RnP	Title 10	Harwood
8/2	8:30	RnB	Basic Radiation Biology	Audiovisual SNM
	9:30	PI	Introduction to Nuclear Physics: binding energies, nuclear forces	Singh
	11:00	PI	Radioactive decay: alpha, beta, gamma and x-ray emission. XRF analysis.	Singh
	13:00	RnP	Principles of Protection	Harwood
	16:00	RnP	Workshop on Radiation Protection	Harwood
8/3	8:30	PI	Laboratory: Radioactive Decay Chase, Rabinowitz, Chapter 6	Wilson, Amartey
	13:00	M	Dose Calculations. External.	Dorthalina
	15:00	RnP	Surveys: Purpose and Theory	Dorthalina
	16:00	RnE	Introduction to Radiation Biology I	Marcus
8/4	8:30	M	Dose Calculations. Internal	Harwood
	9:30	PI	Interactions of Radiation with matter	Tubis
	13:00	PI	Principles of Radiation Chemistry	Tubis
	14:00	M	Dose Calculation Problems	Dorthalina
	16:00	PI	Laboratory: Gamma Detectors Chase/Rabinowitz 7.4	Wilson, Amartey
8/5	8:00	PI	Production and Decay of Radionuclides	Audiovisual SNM
	9:00	RnP	Review of Dose Problems	Dorthalina
	10:00	RnB	Metabolism of Radiopharmaceuticals	Shani
	13:00	PI	Laboratory: Beta and Alpha Detection	Wilson, Amartey
8/8	6:30	RP	Introduction to the Radiopharma- ceutical Laboratory	Kawada, Ebenkamp
	9:00	RnP	Surveys - Practical	Dorthalina
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	PI	Wipe Counting	Dorthalina

<u>Date</u>	<u>Time</u>	<u>Field</u>	<u>Topic</u>	<u>Lecturer</u>
8/9	8:00	PI	The Scintillation Camera	Audiovisual SNM
	8:45	PI	Scintillation Spectrometers	Audiovisual SNM
	9:30	PI	Interaction of charged particles, electromagnetic radiation (X and gamma rays), and neutrons with matter	Singh
	11:00	PI	Detection of Ionizing Radiation. Introduction to Nuclear Electronics.	Singh
	13:00	RE	Animal Distribution Studies I	Wilson, Amartey
8/10	9:00	RPCh	Production of Primary Radionuclides	Wolf/Shani
	13:00	RnP	Waste Disposal: Regulations, Techniques	RSO Staff
	14:00	RnP	Waste Disposal Records	RSO Staff
	15:00	RnP	Status of Waste Disposal at Federal and Local Levels	Harwood
	16:00	RnP	Survey Techniques	Dorthalina
8/11	9:00	RnP	Contamination and Decontamination	Dorthalina
	10:00	RPCh	Radiochemical Separation and Purification Techniques	Wolf/Tubis
	11:00	RPCh	Synthesis of Compounds Labeled with Radioiodine	Wolf/Tubis
	15:00	RE	Animal Distribution Studies II	Wilson, Amartey
8/12	8:00	RnP	Exam	Harwood
	9:30	PI	Discussion of Radiation Detection Experiments	Singh
	11:00	PI	Recent progress in medical imaging	Singh
	13:30	PI	Operation of Gamma Detectors and Pulse Height Analyzers	Wilson, Amartey
8/15	6:30	EP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	10:00	RPCh	Tc-99m Labeled Radiopharmaceuticals	Shani/Wolf
	13:00	EP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Package Receipts: Monitoring and Records	RSO Staff
	17:00	RnP	Surveys: Reviews and Evaluations	Dorthalina
8/16	6:30	EP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp

<u>Date</u>	<u>Time</u>	<u>Field</u>	<u>Topic</u>	<u>Lecturer</u>
	9:30	RPCh	Mechanism of Localization of Radiopharmaceuticals	Shani
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Bioassays	Harwood
8/17	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	10:00	RPCh	Characteristics of Radiopharm.	Audiovisual SNM
	11:00	RPCh	Technetium 99m	Audiovisual SNM
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Regulations and Licensing	Dorthalina
8/18	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	10:00	RPCh	Synthesis of Compounds Labeled with In, Ga and other Radionuclides	Tubis
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	PI	ALARA. Concepts and Management Guidelines	Harwood
8/19	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	9:00	RnP	Energy Absorption in Tissues	Harwood
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Professional Responses to Customer Inquiries	Harwood
8/22	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	9:00	PI	Review of Nuclear Instrumentation	Wilson, Amarte
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Biological Effects Related to Permissible Exposures	Harwood
	17:00	RnP	Thyroid Counting	Harwood
8/23	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	9:00	PI	Review of Nuclear Instrumentation II	Wilson, Amarte
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	15:00	RnP	Laboratory Design and Work Flow Patterns	Dorthalina
8/24	6:30	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	10:00	RnP	Regulations and Licensing	Harwood

<u>Date</u>	<u>Time</u>	<u>Field</u>	<u>Topic</u>	<u>Lecturer</u>
	13:00	RP	Radiopharmaceutical Laboratory	Kawada, Ebenkamp
	16:00	RnB	Introduction to Radiation Biology II	Marcus
8/25	9:00	RnP	Radiation Safety Practices in Commercial Radiopharmacies	Comer
	13:00	RPCh	Special Radiopharmaceutical Syntheses	Keese
8/26	6:30	RnP	Test	RSO Staff
	13:00	RnP	Critique of Course	
	15:00		Picture and Concluding Ceremony	