USR UNITED STATES RADIUM CORPORATION
4150 OLD BERWICK ROAD / BLOOMSBURG, PENNSYLVANIA 17815 / (717) 784-3510

(34)

October 11, 1978

Director of Nuclear Material
Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

We have recently appointed Mr. Terry D. Brown as Nuclear Operations Manager with complete responsibility for all Nuclear Operations functions including marketing and radiation safety and associated governmental regulatory compliance.

Very truly yours,

UNITED STATES RADIUM CORPORATION

Harry J. Dabagian

TDB;jrn

Harry J. Dabagian
President

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RESUME

Terry D. Brown, Health Physicist

Mr. Brown joined RMC in 1977, as a Health Physicist. In this position he provides operational Health Physics support and radiation safety consulting to clients.

Mr. Brown is a graduate of the U.S. Navy Nuclear Power Program. He attended Basic Nuclear Power School at Vallejo, California. The course work was in the field of mathematics, physics, thermodynamics, metallurgy, electricity, reactor principles, reactor plant technology, and mechanical engineering. He attended advanced Nuclear Power School at the Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, Idaho, which consisted of operational training on a dual reactor plant installation. This was followed by specialized training in chemistry, radiochemistry, and health physics (Engineering Laboratory Technician (ELT) School). Mr. Brown attended the University of Illinois at Urbana for two years enrolled in the Engineering Physics curriculum.

From 1966-1969, he served on the USS Enterprise, a nuclear powered aircraft carrier, as an ELT. He was the Assistant Radiological Control Officer on the USS Proteus, a repair ship for nuclear powered submarines, where he was responsible for the day-to-day operations of the Nuclear Support Facility. From 1970-1972 he was the leading ELT on the USS Truxtun, a nuclear powered frigate, responsible for direct supervision of the ELT staff.

From 1972-1973, Mr. Brown was employed by Carolina Power and Light Company, serving in the Radiation Control and Test Group at the H. B. Robinson Electrical Generating plant at Hartsville, South Carolina. He served first as a technician and later as a special assistant to the plant health physicist. The major project assigned in this latter position was to research, write, and test radio-chemistry procedures for the various analyses of nuclear power plant primary coolant and waste water (PWR).

From 1974-1976, Mr. Brown was the Radiation Safety Officer at the radiopharmaceutical manufacturing and distribution facility of Medi-Physics, Inc. at Rosemont, Illinois. In this capacity, he established the radiation safety and associated regulatory compliance program at this plant. Mr. Brown was responsible for the usual functions of an RSO including state and federal license management. In addition, he was responsible for general safety and industrial hygiene.

In 1977, Mr. Brown served as Radiation Safety Officer for contractor personnel during the on-site monitoring phase of the Weldon Spring Chemical Plant Survey and Assessment project for the U.S. Army. This plant was a former AEC feed materials plant processing primarily refined Uranium ore concentrates, although some refined Thorium ore concentrates were also processed

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Terry D. Brown, Health Physicist

Mr. Brown served as Project Manager in the renewal of Amersham Corporation's Type A specific byproduct material license of broad scope issued by the U. S. Nuclear Ragulatory Commission (NRC). In this project Mr. Brown designed a completely new radiation protection program for Amersham Corporation and wrote their corporate radiation protection policy manual. Immediately subsequent to this project Mr. Brown managed and provided the principle technical expertise in the project to evaluate the safety and feasibility of processing over two million curies of tritium per year at the current facilities of Amersham Corporation at Arlington Heights, Illinois. The feasibility was considered not only from a safety standpoint but also from the standpoint of governmental regulatory approval.

Currently, Mr. Brown is managing the Vistron Corporation (Lima, Ohio) project to terminate their NRC source material license. This involves developing a program for the retention, long-term storage, and ultimate disposal of approximately 500 tons of a catalyst containing depleted uranium in a nominal concentration of 14 per cent by weight. The project also involves extensive decontamination of Vistron's grounds and facilities.

Mr. Brown is also currently Assistant Project Manager in the study of pre-operation ambient gamma radiation levels in the vicinity of the William H. Zimmer Nuclear Power Station near Moscow, Ohio. This project involves the use of pressurized ion chambers and a computer based high resolution Ge(Li) gamma ray spectrometer. Mr. Brown's principle responsibility in this project is the calibration of the spectrometry system for in situ measurements and the reduction and analysis of all data collected.

Mr. Brown is a member of the American Nuclear Society and Health Physics Society.

UNITED STATES RADIUM CORPORATION

TRAINING OF TERRY D. BROWN

TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB	FORMA COURS
Principles & Practices of Radiation Protection	US Naval Basic Nuclear Power School; Mare Island Naval Station, Vallejo, CA	6 mos.	no	yes
	US Naval Advanced Nuclear Power School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	6 mos.	yes	yes
	Engineering Laboratory Technician School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	3 mos.	yes	yes
Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	Engineering Laboratory Technician School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	3 mos.	yes	yes
	Carolina Power & Light Co.; H. B. Robinson S.E. Radiation Control and Test Group, Hartsville, SC	9 mos.	yes	no
Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	Engineering Laboratory Technician School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	3 mos.	yes	yes
	Carolina Power & Light Co., H. B. Robinson S.E. Radiation Control and Test Group, Hartsville, SC	9 mos.	yes	no
	University of Illinois; Urbana, IL	18 mos.	no	yes

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TRAINING OF TERRY D. BROWN

TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB	FORM COUR
Biological Effects of Radiation	US Naval Basic Nuclear Power School; Mare Island Naval Station, Vallejo, CA	6 mos.	no	yes
	US Naval Advanced Nuclear Power School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	6 mos.	yes	yes
	Engineering Laboratory Technician School; Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, ID	3 mos.	yes	yes

RADIATION EXPERIENCE OF TERRY D. BROWN

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION	TYPE OF USE
Mixed Fission Products	500 Curies	US Naval Advanced Nuclear Power School Naval Reactor Facility, National Reactor Testing Station, Idaho Falls, Idaho	8 yrs.	Encountered during the operation and maintenance of pressurized water reactor plants
		USS Enterprise;		
		USS Proteus (during maintenance on SSBNs and SSNs in Submarine Squadron 15);		
		USS Truxtun;		
		H.B. Robinson S.E. Plant, Hartsville, SC		
Activated Corrosion Products	10 Curies			
Calibration and Test Sources, primarily:				
Cs-137	20 Curies			
Co-60	100 Curies			
Polonium-Beryllium neutron source	10 Curies			
Molybdenum-99	200 Curies	Medi-Physics, Inc.	2.5yrs	Radiopharmaceutical manufac
Technetium-99m	200 Curies	Medi-Physics, Inc.	2.5yrs	Radiopharmaceutical manufac

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RADIATION EXPERIENCE OF TERRY D. BROWN

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION	TYPE OF USE
Gallium-67	0.6 Curies	Medi-Physics, Inc.	2.5yrs	Distribution of prepackaged sources
Iodine-123	0.01 Curies	Medi-Physics, Inc.	2.5yrs	Distributic of prepacka sources
Indium-111	0.04 Curies	Medi-Physics, Inc.	2.5yrs	Distribution of prepackage sources
Xenon-133	1.0 Curie	Medi-Physics, Inc.	2.5yrs	Distribution of prepackage sources
Strontium/ Yttrium -90	0.005 Curies	Medi-Physics, Inc.	3 mos	Sealed source used in calibration check of port radiation measuring instrument
Cobalt-57	0.015 Curies	Medi-Physics, Inc.	1 yr	Sealed source used in calibration check of - ic activity measuring instrument
Selenium-75	0.01 Curies	Medi-Physics, Inc.	3 mos	Distribution of prepackage sources

TWX 510 651 2634

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October 23, 1978

Radioisotopes Licensing Branch
Division of Fuel Cycle and Material Safety
U. S. Nuclear Regulatory Commission
396SS Washington, D. C. 20555

Attention: Mr. Frederick Combs

Reference: USNRC License 37-00030-02

Docket No. 87910

Dear Mr. Combs:

Enclosed is the information you requested in your letter of June 9, 1978. Specific operations are scheduled only through June of 1979. At this time, a complete evaluation of survey results collected will be carried out to determine further operations.

Very truly yours,

UNITED STATES RADIUM CORPORATION

Terry D. Brown

Terry D. Brown
Nuclear Operations Manager

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Enc.

CERT. MAIL -rrr
CC: USNRC

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OCTOBER THROUGH DECEMBER, 1978

Area 9 - Survey silo to determine nature of decontamination efforts necessary.

Area 12 - Take three core samples in vicinity of old burial pits and establish permanent wells for continuing samples of ground water and sub-surface radiation levels.

Area 14 - Excavate contaminated soil between lagoons.

Area 15 - Decontaminate cement trough and storm sewer. Replace if necessary.

Area 18 - Survey to determine extent of area involved. Take core samples by hand.

Area 19 - Remove contaminated soil by Tritium building.

Area 21 - Remove contaminated wall in carpenter shop.

Area 22 - Survey all external plant walkways.

JANUARY THROUGH JUNE, 1979

Area 2 - (a) Decontaminate former shipping room.

(b) Survey former Watch Dial screen rooms, exhaust ducts, filter bank and plenum chamber.

(c) Survey attic to determine exact location of contaminated areas.

Area 5 - Reopen and survey old radium vault.

Area 7 - Decontaminate sealed sources vault.

Area 8 - Decontaminate old garage.

Area 23 - Survey canal bank.

--- REVIEW PROGRAM ---