



DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND
5001 EISENHOWER AVENUE, ALEXANDRIA, VA. 22333

2 April 1985

US Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

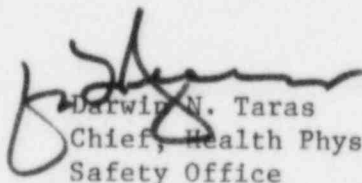
Reference: AMCSF-P/85-0058

Gentlemen:

Forwarded are two copies of the US Army Communications-Electronics Command's request to amend US Nuclear Regulatory Commission Byproduct Material License Number 29-01022-08. The amendment requests change to radiation protection personnel.

Please acknowledge receipt of correspondence on enclosed DA Form 209, Mail Reply Card.

Sincerely,


Darwin N. Taras
Chief, Health Physics,
Safety Office

Enclosures

Copies Furnished:

HQDA(DASG-PSP-E) WASH DC, 20310 2 cys w/encl
Director, AMC FSA, Charlestown, IN 47111 w/encl
Commander, CECOM, ATTN: AMSEL-SF-MR, Ft. Monmouth, NJ 07703 w/o encl

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REG1 LIC30
29-01022-08 PDR

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DEPARTMENT OF THE ARMY

HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND

AND FORT MONMOUTH

FORT MONMOUTH, NEW JERSEY 07703-5000

REPLY TO
ATTENTION OF

27 March 1985

AMSEL-SF-MR

SUBJECT: Renewal and Complete Revision of US Nuclear Regulatory Commission
(NRC) License Number 29-01022-08

Commander
US Army Materiel Command
ATTN: AMCSF-P
5001 Eisenhower Avenue
Alexandria, VA 22333-0001

1. Reference is made to subject NRC license application, dated 25 May 1984, submitted by this headquarters for your review and forwarding to the NRC.

2. Request the following change be made to referenced application:

Supplement C of subject NRC license application be amended to delete Mr. Steven A. Horne as an Alternate Radiation Protection Officer and indicate his reassignment as Alternate License Manager. A revised Supplement C is provided at enclosure 1 for insertion into subject license application.

3. Request an amendment to subject license be issued to reflect these changes.

4. POC this command is Mr. Joseph M. Santarsiero or Mr. Barry J. Silber, AV 995-4427.

5. CECOM - Providing leaders the decisive edge.

FOR THE COMMANDER:

1 Encl (7 cy)
as

Steve A. Horne
BERNARD M. SAVAIO
Chief, Safety Office

SUPPLEMENT C

1. Reference: Item 7 of Form NRC-313I.
2. Enclosures 1, 2, 3, and 4 are the qualifications of the US Army Communications-Electronics Command (CECOM) RPO, Alternate RPO, License Manager, and Alternate License Manager, respectively.

BARRY J. SILBER, Supervisory Health Physicist, US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey

a. Education:

(1) A.A. - Brooklyn College of the City University of New York, Brooklyn, New York - 1965.

(2) B.S. - Brooklyn College of the City University of New York, Brooklyn, New York - 1969. Major: Chemistry.

b. Professional Experience:

(1) October 1966 - May 1967:

Allen Pharmacal Corporation, 175 Pearl Street, Brooklyn, New York.

Laboratory Technician - Analytical Chemistry Laboratory.

Laboratory analyses of pharmaceuticals at various stages of manufacture to insure compliance with Food and Drug Administration Regulations as well as United States Pharmacopeia and National Formulary Monographs.

(2) June 1967 - March 1970:

EON Corporation, 175 Pearl Street, Brooklyn, New York.

Chemist - Responsible for all health physics activities, including radiation surveys, air sampling and wipe tests, leak testing of sealed sources, decontamination of facilities and equipment, disposal of radioactive wastes, calibration of radiation survey and measurement instrumentation, record-keeping, etc., to insure compliance with US Nuclear Regulatory Commission (NRC) and New York State Regulations; liaison between regulatory agencies and corporate management; authorized radiation worker (user) of multiple types of radioactive materials used in the manufacture of radiation sources for commercial, military and highly specialized (custom-made) use; responsible for all chemistry activities including metallurgical applications on products at various stages of manufacture to meet quality control specifications.

(3) March 1970 - June 1977:

State of New York Department of Labor, Division of Safety and Health, 2 World Trade Center, New York, New York.

Senior Radiophysicist - Radiological Health Unit.

Responsible for the review of applications, including the evaluation of facilities, equipment, personnel and products containing radioactive materials, and in the preparation of State licenses authorizing the possession and use of radioactive materials by persons in industry and related activities in this State; assist in the administration of the licensing program; consult with and assist industrial management personnel and others in establishing radiation protection programs; conduct inspections, special precertification investigations, radiation surveys and tests at the sites of licensees and registrants using radiation sources to enforce state regulations and to insure that radiation workers and the general public are fully protected; assemble environmental research data, analyze and interpret this data, assist in the publication of scientific reports, and training of new staff members.

(4) June 1977 - January 1978:
 US Army Electronics Command (ECOM), Fort Monmouth, New Jersey.
 Health Physicist - Responsible for health physics functions in the establishment and implementation of the ECOM Safety Program aimed at establishing life cycle controls of ECOM commodities utilizing radioactive material and ionizing radiation producing devices; responsible for the evaluation of radiological protection programs and radiation facilities to determine their adequacy and to insure compliance with DA Authorizations and NRC Licenses; perform studies and evaluations necessary to minimize the health risks to personnel; prepare and review applications for DA Authorizations and NRC Licenses; establish and maintain radiation protection records and files.

(5) January 1978 - April 1981:
 US Army Communications and Electronics Materiel Readiness Command (CERCOM), Fort Monmouth, New Jersey.
 Duties are the same as in Item b(4) above. Name change from ECOM to CERCOM.

(6) May 1981 - Present:
 CECOM, Fort Monmouth, New Jersey.
 Duties are the same as in Item b(4) above. Name change from CERCOM to CECOM.

c. Formal Training in Radiation Protection Methods, Measurements and Effects:

	<u>Duration of Training</u>	<u>On-The-Job</u>	<u>Formal Course</u>
(1) X-Ray Technology for Radiological Health Personnel-Memorial Hospital for Cancer and Allied Diseases, 444 East 68th Street, New York, New York - 11 January - 14 January 1971.	3 Days	No	Yes
(2) Orientation Course in Regulatory Practices and Procedures - NRC, Bethesda, Maryland - 1 March - 19 March 1971.	3 Weeks	No	Yes
(3) Health Physics and Radiation Protection - Special Training Division, Oak Ridge Associated Universities, Oak Ridge, Tennessee - 12 February 1973 to 20 April 1973. Sponsored by the NRC for Agreement State regulatory personnel.	10 Weeks	No	Yes
(4) Radiological Safety Course - US Army Ordnance and Chemical Center and School, Aberdeen Proving Ground, Maryland - 25 October - 15 November 1977.	3 Weeks	No	Yes
(5) Internal Dosimetry for Fixed Nuclear Facilities-Oak Ridge Associated Universities, Oak Ridge, Tennessee - 5 November - 9 November 1979.	1 Week	No	Yes
(6) Managers' Environmental Course -	1 Week	No	Yes

d. Experience with Radiation.

<u>Isotope</u>	<u>Maximum Amount</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
(1) ^{14}C	60 mCi	3 Years	For items 1 through 10-manufacture of sealed sources, health physics surveys and wipe tests.
(2) ^{32}P	10 mCi	3 Years	
(3) ^{36}Cl	10 mCi	3 Years	
(4) ^{63}Ni	10 mCi	3 Years	
(5) $^{90}\text{Sr}/^{90}\text{Y}$	50 mCi	3 Years	For items 11 and 14-calibration of radiation instrumentation, health physics surveys and wipe tests.
(6) ^{99}Tc	100 mCi	3 Years	
(7) $^{106}\text{Ru}/^{106}\text{Rh}$	50 mCi	3 Years	
(8) $^{144}\text{Ce}/^{144}\text{Pr}$	500 mCi	3 Years	
(9) ^{147}Pm	500 mCi	3 Years	For items 12 and 13-health physics surveys and wipe tests.
(10) ^{204}Tl	50 mCi	3 Years	
(11) ^{60}Co	10 mCi	3 Years	
(12) ^{60}Co	200 Ci	3 Years	
(13) ^{137}Cs	250 Ci	3 Years	
(14) ^{226}Ra	20 mCi	3 Years	

JOSEPH M. SANTARSIERO, Health Physicist, US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey

a. Education:

- (1) Seton Hall University, East Orange, New Jersey
Biology program 1972-1973.
- (2) Brookdale Community College, Lincroft, New Jersey
- (3) Rutgers, The State University, New Brunswick, New Jersey
BS degree in Biology, May 1978.
- (4) Middlesex General Hospital, New Brunswick, New Jersey
Certification in Nuclear Medicine Technology, May 1978.
 - (a) American Registry of Radiologic Technologists (ARRT).
 - (b) Certifying Board of Nuclear Medicine Technology (CBNMT).
 - (c) State of New Jersey Certification - Nuclear Medicine

Technology.

- (5) Rutgers, the State University, New Brunswick, New Jersey
Presently completing program of graduate study in Radiation Science (Masters Program). Course work has included: Advanced: Special Problems; Special Topics in Radiological Health; Radiation Detection and Measurement; Radiation Chemistry; Radiation Safety; Radiation Health Physics; Nuclear Instrumentation; Radionuclide Chemistry and Radiopharmaceuticals; Radiation Protection; Radiation Biology; Radiation Biochemistry; Clinical Applications of Radionuclides; Radiation Dosimetry; Radiation Therapy; Interactions of Radiation with Matter; Atomic Theory and Structure; Nuclear Theory and Structure; Radioactivity and the Environment; Instrumentation and Radiation; Nuclear Physics; Radiation Biophysics.

b. Professional Experience:

- (1) May 1978-August 1982:

Monmouth Medical Center, 3rd and Pavillon Avenues, Long Branch, New Jersey.

Senior Nuclear Medicine Technologist-Department of Nuclear Medicine. Licensed to prepare and administer radiopharmaceuticals for diagnostic imaging of disease in or on human beings. Responsible for the quality control of imaging systems and computers, dose calculation and assay prior to administration, patient orientation to procedures and on-call emergency procedures. Performed various health physics activities including radiation surveys, air sampling and wipe tests, leak testing of sealed sources, decontamination of facilities and equipment, disposal of radioactive wastes, calibration of

radiation survey and measurement instrumentation, record-keeping, etc., to insure compliance with US Nuclear Regulatory Commission (NRC) and New Jersey State Regulations.

(2) August 1982-September 1983:

Bio-Med Associates, Inc., 753 Boulevard, Kenilworth, New Jersey.

Provide consultation to hospitals, doctors, administrators, etc., regarding the safe and proper use of radiation and radioactive materials. Determine the requirements of, and design the shielding for X-ray installations and nuclear medicine departments. Prepare applications for the use of radioactive materials for both USNRC and State regulated radioactive materials. Amend licenses as requested and required. Evaluate radiation safety programs, prepare and give lectures to physicians, nurses, administrators, etc., regarding radiation and radioactivity. Design areas where radioactive materials are stored and/or used. Perform quality control procedures on X-ray machines and nuclear medicine instruments. Instruct X-ray students. Review personnel monitoring records and methods, evaluate personnel performance regarding radiation and its use, perform sealed source leak tests on various radionuclides.

(3) September 1983-February 1984:

State of New Jersey, Department of Environmental Protection, Bureau of Radiation Protection, 380 Scotch Road, Trenton, New Jersey.

Radiation Physicist.

Approved or rejected licenses or amendments for possession and use of radioactive materials, in the State of New Jersey, after assessment of user qualification, radiation safety program, and compliance with State rules and regulations. Reorganized program format and developed inspection procedures, criteria and forms. Evaluated and provided recommendations for quality assurance of radiopharmaceuticals and instruments at user facilities. Performed inspections and violation investigations of facilities utilizing State licensable materials, initiated legal proceedings for areas found to be in non-compliance, and issued letters of compliance. Authorized to impound non-compliant units to prevent usage that may be detrimental to public and/or occupational safety. Conducted special projects evaluating radiation hazards and development of procedures for control and reduction of unnecessary radiation. Investigated violations and incidents post notification of radiation hazard with authority to establish improved radiation safety requirements. Registered NRC licensable materials. Registered accelerators and reviewed radiation safety surveys. Member of emergency response team with authority to make immediate decisions relative to public health and safety regarding the control of radiation. Responsible for monthly report and statistic preparation involving radioactive material users, inspections, violations, NRC registrations, and accelerators. Responded to all public and private inquiries involving radioactive materials or non-ionizing radiations. Proposed regulations for NJ Administrative Code adoption.

(4) February 1984-present

US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey.

Health Physicist - Responsible for health physics functions in the

establishment and implementation of the CECOM Safety Program aimed at establishing life cycle controls of CECOM commodities utilizing radioactive material and ionizing radiation producing devices; responsible for the evaluation of radiological protection programs and radiation facilities to determine their adequacy and to insure compliance with DA Authorizations and NRC Licenses; perform studies and evaluations necessary to minimize the health risks to personnel; prepare and review applications for DA Authorizations and NRC Licenses; establish and maintain radiation protection records and files.

c. Experience with Radioactive Materials:

	<u>Maximum Isotope</u>	<u>Duration of Amount</u>	<u>Experience</u>	<u>Type of Use</u>
1.	$^{99}\text{Mo}/^{99\text{m}}\text{Tc}$	2 Ci	5 years	For items 1. through 19, radiopharmaceutical preparation, dose injection, and/or related diagnostic/therapeutic procedures, health physics surveys, wipe test analysis, and instrument calibration.
2.	^{131}I	20 mCi	5 years	
3.	^{75}Se	5 mCi	5 years	
4.	^{67}Ga	50 mCi	5 years	
5.	^{201}Tl	30 mCi	5 years	
6.	^{32}P	40 mCi	5 years	
7.	^{133}Xe	200 mCi	5 years	
8.	$^{81}\text{Rb}/^{81\text{m}}\text{Kr}$	25 mCi	2 years	
9.	^{125}I	50 mCi	5 years	
10.	^{123}I	10 mCi	5 years	
11.	^{137}Cs	5 Ci	5 years	
12.	^{226}Ra	800 mg	5 years	
13.	^{192}Ir	80 Ci	6 months	
14.	^{60}Co	100 Ci	3 months	
15.	^{57}Co	30 mCi	5 years	
16.	^{133}Ba	10 mCi	5 years	
17.	^{51}Cr	25 mCi	5 years	
18.	^{59}Fe	20 mCi	1 year	
19.	^{111}In	3 mCi	5 years	

BERNARD M. SAVAICO, Chief, Safety Office, US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey

a. Education: 1957 - B.S. Industrial Engineering, Columbia University, New York, New York.

b. Professional Experience:

(1) 5 years - Safety Officer - US Air Force.

(2) 4 years - Industrial Safety - U.S. Steel Corporation.

(3) 23 years - Industrial Safety and Chief, Safety Office- USACECOM (formerly US Army Communications and Electronics Materiel Readiness Command and US Army Electronics Command) Fort Monmouth, New Jersey, including 3 years experience as a Radiation Protection Officer with responsibilities for the control of various commodities containing radioactive materials.

Mr. Savaiko is designated as the manager of Nuclear Regulatory Commission Licenses and Department of the Army Authorizations.

STEVEN A. HORNE, Supervisory Safety Engineer, US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey

1. Educational Background:

Old Dominion University Norfolk, Virginia	3 Years	1964 - Associate in Applied Science
The Catholic University of America Washington, DC	2 Years	1975 - BSE Nuclear Science and Engineering
The Catholic University of America Washington, DC	-	1975 - Graduate Work in Nuclear Science and Engineering

2. Formal Training and Experience in Radiation Protection Methods, Measurements and Effects:

	<u>Duration of Training</u>	<u>On The Job</u>	<u>Formal Course</u>
a. Fifty-six semester hours pertaining to radiation, including college physics, Environmental Aspects of Nuclear Power Plant Management, Environmental Radio- activity, Nucleonic Fundamentals, Nuclear Properties and Interactions, Nuclear Physics, Nuclear Radiation Detection, Nuclear Reactor Physics, Radiation Biology, Radioisotope Techniques and Radiological Physics - Old Dominion University and The Catholic University of America.	1961-1975	No	Yes
b. Radiation Detection Effects and Devices Utilizing various type of high energy accelerators - Virginia Associated Research Center Newport News, Virginia, and NASA Langley Research Center, Langley, Virginia.	1 Year	Yes	No
c. Radiation safety, detection instrumentation and isotopic handling equipment - Flow Corp, Fort Belvoir, Virginia.	2 Months	Yes	No

	<u>Duration of Training</u>	<u>On The Job</u>	<u>Formal Course</u>
d. Radiological Safety Course pertaining to Nuclear Moisture/Density Instrumentation - Seaman Nuclear Corporation, Milwaukee, Wisconsin.	24 hours	No	Yes
e. Occupational Radiation Protection Course 212 - Public Health Services, Las Vegas, Nevada.	80 Hours	No	Yes
f. Fundamentals of Non-Ionizing Radiation Protection Course 264 - Public Health Service, Rockville, Maryland.	40 Hours	No	Yes
g. Laser Safety Course - University of Cincinnati, Ohio	40 Hours	No	Yes
h. Radionuclide Analysis by Gamma Spectroscopy Course 208 - Public Health Services, Winchester, Massachusetts.	80 Hours	No	Yes
i. Radiation Guides and Dose Assessment Course 272 - Environmental Protection Agency, Las Vegas, Nevada.	80 Hours	No	Yes
j. Boiling Water Reactor Technology Course - Public Service Gas and Electric Company, Salem, New Jersey.	64 Hours	No	Yes

3. Experience with Radioisotopes:

<u>Isotope</u>	<u>Maximum Activities in Curies</u>	<u>Duration of Experience</u>	<u>Type of Experience</u>
^{241}Am	1	3 Years	For all radionuclides listed, experience consisted of laboratory analysis, wipe tests, experiments and evaluations utilizing these sources.
^{252}Cf	.27	3 Years	
^{57}Co	0.1	4 Years	
^{60}Co	1200	8 Years	
^{137}Cs	1	8 Years	
^3H	20	8 Years	
^{192}Ir	100	8 Years	

<u>Isotope</u>	<u>Maximum Activities in Curies</u>	<u>Duration of Experience</u>	<u>Type of Experience</u>
^{147}Pm	1	8 Years	
$^{226}\text{RaBe}$	1	5 Years	
$^{239}\text{PuBe}$	1	1 Year	
^{90}Sr	0.1	2 Years	

4. Experience with other Radiation Producing Machines:

<u>Radiation Machine</u>	<u>Duration of Experience</u>	<u>Type of Experience</u>
a. NASA Langley Research Center, and Virginia Associated Research Center's, Space Radiation Effects Laboratory consisting of a 2 MeV Van de Graaff accelerator, 3 MeV Dynamitron accelerator, 10 MeV Linear Electron Accelerator, a 1600 MeV Proton Synchrotron Accelerator and a 14 MeV Neutron Generator.	1.5 Year	Radiation damage Shielding Experiments and Related Health Physics Studies.
b. 250 KeV General Electric Corporation X-ray machine	8 Years	Health Physics and laboratory experiments.
c. Various energy dispersive and wave length X-ray fluorescence spectrometry with X-ray generators up to 50 KeV.	8 Years	Health Physics and laboratory experiments.

5. Experience with radiation:

- 1964-1965 - Virginia Associated Research Center, NASA, Langley Research Center, Virginia as health physics technologist.
- 1965-1966 - E.R. Squibb, New Brunswick, New Jersey as radiochemist isotope technologist
- 1966-1968 - Flow Corporation, Nuclear Division, Fort Belvoir, Virginia as radiation engineer.
- 1968-1976 - US Army Mobility Equipment Research and Development Command, Fort Belvoir, Virginia as health physicist.
- 1976-1978 - US Army Electronics Command, Fort Monmouth, New Jersey as health physicist.

1978-1983 - CECOM, Fort Monmouth, New Jersey as Supervisory
Health Physicist.

1983 - - CECOM, Fort Monmouth, New Jersey as Supervisory
Present Safety Engineer.

Mr. Horne is designated as the alternate manager of Nuclear Regulatory
Commission Licenses and Department of the Army Authorizations.(Enclosed).

DISPOSITION FORM

For use of this form, see AR 340-15; the proper agency is TAGO.

REFERENCE OR OFFICE SYMBOL

SUBJECT

SELHI-ADJ

DUTY APPOINTMENT

TO SEE DISTRIBUTION

FROM Cdr, HISA

DATE

31 DEC 1984

CMT 1

SFC Steltzer/27824

1. The following individual is appointed as indicated:

HORNE, Steven A. (DAC), Chief, Matl Sfty Engr Div, Safety Office, FMNJ
07703 (ALTERNATE)

2. Effective: 20 December 1984

Appointed as: License Manager for US Nuclear Regulatory Commission
(NRC) Licenses and DA Radiation Authorizations issued to CECOM.

Designated as: NA

Certified as: NA

Assigned as: NA

3. Authority: DSAM 4145.8 and AR 700-64

4. Purpose: To comply with the requirements of DSAM 4145.8 and AR 700-64.

5. Period: Until officially relieved or released from appointment.

6. Special Instructions: None

FOR THE COMMANDER:

Lindsey A. Smith
LINDSEY A. SMITH
CPT, IN
Adjutant

DISTRIBUTION:

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