



70-1355

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

DRCSF-P/82-0129

12 October 1982

Director
Nuclear Material Safety and Safeguards
ATTN: Radioisotopes Licensing Branch
US Nuclear Regulatory Commission
Washington, DC 20555



Gentlemen:

Forwarded is US Army Communications-Electronics Command request for Amendment to Special Nuclear Material License Number SNM-1327. This request is to list Barry J. Silber as Radiation Protection Officer and Patricia Ann Elker as Alternate Radiation Protection Officer.

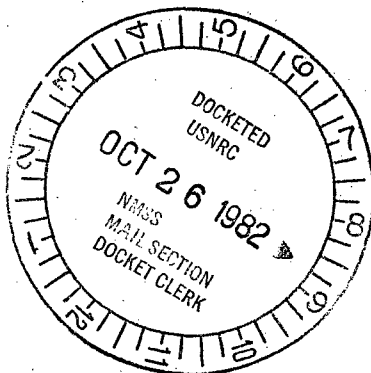
Please acknowledge receipt of correspondence on inclosed DA Form 209 Mail Reply Card.

Sincerely,

DARWIN N. TARAS
Chief, Health Physics
Safety Office

2 Incl
as

CF:
HQDA(DASG-PSP-E) WASH DC 20310 2 cys w/incl
Dir, DARCOM FSA, Charlestown, IN 47111 w/incl



F/18

FEE EXEMPT

21372

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REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703

DRSEL-SF-MR

4 OCT 1982

SUBJECT: US Nuclear Regulatory Commission (NRC) License Number SNM-1327

Commander
US Army Materiel Development and Readiness Command
ATTN: DRCSF-P
5001 Eisenhower Avenue
Alexandria, VA 22333

1. Reference is made to Amendment Number 2, dated 12 June 1978, to subject NRC license and to all amendments issued thereto.
2. Due to changes in Safety Office structure, Mr. Barry J. Silber and Ms. Patricia Ann Elker will now serve in the capacity of Radiation Protection Officer (RPO) and Alternate RPO, respectively, for this command under subject NRC license.
3. Inclosure 1 incorporates the qualifications of Ms. Elker. Mr. Silber's qualifications have been previously provided to you and incorporated into reference 1.

FOR THE COMMANDER:

1 Incl
as

Bernard M. Savaiko
BERNARD M. SAVAIO
Chief, Safety Office

PATRICIA ANN ELKER, Health Physicist, US Army Communications-Electronics Command (CECOM), Fort Monmouth, New Jersey

a. Education:

- (1) Rutgers University, New Brunswick, New Jersey
Presently completing program of graduate study in Radiation Science. Course work has included: Bioinorganic Chemistry; Radiation Physics; Special Topics in Radiologic Health; Laboratory Methods of Radiation Detection; Radiation Chemistry; Radiation Biophysics; Electronics and Instrumentation; Advanced Special Problems; Radiation Dosimetry.
- (2) J.F.K. School of Nuclear Medicine, Edison, New Jersey
Certificate in Nuclear Medicine Technology, 1976. ARRT, NM-1976, NMTCB-1978. Award: Mallinckrodt Academic Achievement Award.
- (3) Monmouth College, West Long Branch, New Jersey
BS Degree in Biology, January 1976. Minor - Medical Technology
- (4) Susquehanna University, Selinsgrove, PA
Biology program 1971-1973.

b. Professional Experience:

- (1) July 1981 - present

Health Physicist, US Army Communications-Electronics Command, Fort Monmouth, NJ.

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.

- (2) July 1980 - July 1981

Supervisor, Radioactive Material Section, Radiation Physicist, Department of Environmental Protection (DEP), Bureau of Radiation Protection (BRP) Trenton, NJ.

Responsible for supervision and coordination of the radioactive material (RAM) program. Authorized to approve or reject licenses or amendments for possession and use of RAM after assessment of user qualification, radiation safety program, and compliance with State rules and regulations. Reorganized

program format and developed inspection procedures, forms and criteria. Evaluated and provided recommendations for quality assurance of radio-pharmaceuticals and instruments at facilities. Assigns and trains inspectors for RAM facility program review. Issued letters of non-compliance or compliance resulting from inspection. Performed inspections and violation investigations. Registered NRC licensable materials. Registered accelerators and reviewed radiation safety surveys. Authorized to approve or reject applications for certificates of handling in the transportation of any RAM above 20 curies. State Radiological Assessment Officer on call for nuclear generating station emergency response, and assists in emergency planning. Member of emergency response team with authority to make immediate decisions relative to public health and safety regarding control of radiation. Maintained Bureau's RAM storage area and records of accountability, radiation safety surveys, and compliance with NRC license requirements. Responsible for monthly report and statistic preparation involving RAM users, inspections, violations, NRC registrations, and accelerators. Responded to all inquiries involving RAM or non-ionizing radiations. Developed fee schedule format, and maintained records. Proposed regulations for NJ Administrative Code adoption.

(3) February 1980 - July 1980

Radiation Physicist, DEP, BRP, Trenton, NJ.

Enforced State rules and regulations governing medical and industrial or research radiation producing units. Responsible for compliance testing and evaluation, report preparation, and performance of radiation safety surveys. Authorized to impound non-compliant units preventing usage establishing 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. Participated as member of radiation emergency response team.

(4) January 1979 - January 1980

Nuclear Medicine Technologist, St. Peter's Medical Center, New Brunswick, NJ.

Performed diagnostic imaging and evaluation for improved medical diagnosis. Performed quality control and calibration of instrumentation and computer. Responsible for patient orientation to procedures, radiopharmaceutical preparation, dose calculation and assay for intravenous or other approved aseptic method of dose administration. Performed radiation monitoring for safety and regulation compliance evaluation. Responsible for proper radioactive waste disposal compliant with all regulatory agencies and safety standards. Performed sophisticated computer analysis for diagnostic studies. Performed in vivo diagnostic evaluations. Responsible for on call emergency routines.

(5) May 1976 - January 1979

Nuclear Medicine Technologist, Jersey Shore Medical Center,
Neptune, New Jersey

Same as above, including ultrasound and Doppler technologies
for diagnostic procedures. Radioimmunoassay for in vitro procedures.
Responsible for monitoring and maintaining records for therapeutic sealed
source storage area.

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

- (1) Internal Dosimetry for Fixed Nuclear Facilities-Special Training
Division, Oak Ridge Associated Universities, Oak Ridge, TN,
September 1981. One week formal course.
- (2) Emergency Response for Nuclear Incidents - Sponsored by the
Federal Emergency Management Agency at the DOE Nevada Test Site,
Las Vegas, Nevada, November 1980. Two week formal course.
- (3) Emergency Response - Sponsored by the NJ Bureau of Emergency
Response at the NJ Bureau of Radiation Protection, Trenton, NJ,
1980. One week formal course.
- (4) Quality Control in Radiographic Procedures and Processing -
E.I. duPont Nemours Training Center, 1980. One week
formal course.
- (5) Quality Control in Nuclear Medicine - Bureau of Radiological
Health program, sponsored by the NJ State Society of Nuclear
Medicine at Middlesex General Hospital, New Brunswick, NJ,
1979. Twelve hours formal training.

d. Experience with Radioactive Materials:

(see attached list)

| <u>Isotope</u> | <u>Maximum Amount</u> | <u>Duration of Experience</u> | <u>Type of Use</u> |
|---|---------------------------|-----------------------------------|--|
| 1. $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ | 1.0-3.0 Ci | 5 Years | For items 1 through 16, radiopharma- ceutical preparation, dose injection, and/or related diagnostic procedures, health physics surveys, wipe test analysis, and instrument calibration. |
| 2. ^{131}I | 10 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 | 20 mCi | 5 Years | |
| 7. ^{133}Xe | 100 mCi | 5 Years | |
| 8. $^{81}\text{Rb}/^{81\text{m}}\text{Kr}$ | 25 mCi | 2 Years | |
| 9. ^{125}I Sealed Source RIA | 50 mCi | 5 Years | |
| 10. ^{123}I | 10 mCi | 5 Years | |
| 11. ^{137}Cs | 500 mCi | 5 Years | |
| 12. ^{226}Ra | 500 mg | 5 Years | |
| 13. ^{192}Ir | 80 Ci | 6 months | |
| 14. ^{60}Co | 100 Ci | 1 month | |
| 15. ^{57}Co | 30 mCi | 5 Years | |
| 16. ^{133}Ba | 10 mCi | 5 Years | |
| 17. PuBe | | 1 month | |

BARRY J. SILBER, Health Physicist, US Army Communications and Electronics Materiel Readiness Command (CERCOM), 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 prelicensing 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 - Present:
 CERCOM, Fort Monmouth, New Jersey.
 Duties are the same as in Item b(4) above. Name change from ECOM to CERCOM.

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 |

c. 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 | |

| <u>Isotope</u> | <u>Maximum Amount</u> | <u>Duration of Experience</u> | <u>Type of Use</u> |
|---------------------------------------|---------------------------|-----------------------------------|---|
| (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 | |