AMSMC-SFS

29 MAY 1986

SUBJECT: Request for Amendment to Nuclear Regulatory Commission (NRC) License BML 12-00722-06

THRU: Commander
U.S. Army Materiel Command
ATTN: AMCSF-P
5001 Eisenhower Avenue
Alexandria, VA 22333-0001

TO: Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glyn Ellyn, IL 60137

1. Reference meeting with Mr. Byron Morris and Mr. Ralph Cardenuto, HQ, AMCCOM, AMSMC-SF, and Mr. Mike McCann, NRC Region III, 15 May 86, SAB.

2. The request for amendment to NRC license BML 12-00722-06, dated 23 Dec 85, was discussed at referenced meeting. The NRC requested additional information, which is provided below.

a. NRC request: Clarify what is meant by "civilian" personnel.

AMCCOM response: Civilian personnel refers only to U.S. Army or Marine Corps employees (nonmilitary).

b. NRC request: Provide an outline of the Radiological Safety Course, 7K-F3 and explain why the GS-1306 and MOSs 7330, 551, and 52 are exempt from the requirements for minimum RPO training.

AMCCOM response: The 7K-F3 course is an intensive, 117-hour course which includes biological effects of radiation, shielding, special hazards, radiation protection, personnel dosimetry, radiac instrumentation, calibration of radiac equipment, basic regulatory requirements in safe handling and storage, transportation of radioactive material, radioactive waste, leak tests, environmental surveys, X-rays, lasers and microwaves, and management of accidents. The GS-1306 and MOSs listed are Army designations for positions that require at least the number of hours training as is offered by the 7K-F3 course. For example, the 52A is the designation for a Nuclear Effects Officer, who is required to have at least a 2-week course in radiation safety, which includes all the subjects listed above for the 7K-F3 course.

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c. NRC request: Explain the approval procedure for depot RPOs.

AMCCOM response: The depots provide the RPO resumes and radiac instrumentation on hand to the NRC license Radiation Safety Officer (RSO) at this headquarters. The RSO approves of each RPO by initialing the resume and instrumentation list. The RPO resumes and instrumentation lists are kept on file at this headquarters and are available for review by the NRC.

d. NRC request: Delete Elizabeth Peterson's resume from the NRC licenses for your headquarters, since she is no longer employed by your office.

AMCCOM response: This is being addressed by separate letter to the NRC, since all of our NRC licenses are affected.

3. The POC is Mrs. Katheryn LaFrenz, AV 793-2965, or FTS 367-2965.

4. AMCCOM - Providing Leaders the Decisive Edge.

FOR THE COMMANDER:

SIGNED

KML
DAVID P. SKOGVAN
Ch, Systems, Chemical, & Radiation Div

Resume of Training and Experiance of

Ralph A. Cardenuto

AMCCOM Health Physicist / Alternate Radiation Protection Officer

1. General Educational Background:

Bachelor of Science, State University of New York, College at Cortland;
Dual major: Physics and Mathematics, 1978-1982

Course Work

Mathematics 42 Semester Hrs.	Physics 43 Semester Hours
Basic Concepts of Mathematics	Principles of Physics 1-2
Introduction to Computers 1-2	Intermediate Physics Lab 1-2
Algorithmic Processes and Computer Languages	Mechanics
Calculus 1-4	Atomic Physics
Differential Equations	Electronics
Linear Algebra	Electricity and Magnetism
Algebraic Structures	Optics
Topics in Applied Mathematics	Statistical and Thermal Physics
Methods of Applied Mathematics	Nuclear Physics
Intermediate Analysis	Quantum Mechanics
	Topics in Physics

2. Formal Training in Radiation Safety:

Category: A. Principles and practices of radiation protection.
B. Radioactivity measurement standardization and monitoring techniques.
C. Mathematics and calculations basic to the use and measurement of radioactivity.
D. Biological effects of radiation.

Type Of Training	Course	Duration	Completion
A, B, D	Radiological Hazards Associated with Depleted Uranium Munitions Presented by Battelle, Pacific Northwest Laboratory at Rock Island Arsenal, IL	40 hr	Mar 85
A, B, C, D	Applied Health Physics Oak Ridge Assoc. Univ. Oak Ridge, Tn.	200 hr	Oct 84
A, B, C, D	Occupational Radiation Safety Belvoir Research and Developement Center Ft. Belvoir, Va.	80 hr	Jul 84

Type of Training	Course	Duration	Completion
A, B, C, D	Radiological Safety Course (7K-F3) U.S. Army Chemical School Ft. McClellan, AL	120 hr	Dec 83
A, D	Ionizing Radiation U.S. Army Environmental Hygiene Agency Aberdeen Proving Ground, MD	4 hr	Jul 83
A, B, C, D,	Radiological Safety I Correspondence Course U.S. Army Institute for Professional Development	13 Cred hr	Jul 83
A, B, C	Radioactive Waste Packaging, Transportation and Disposal Workshop Chem-Nuclear Systems, Inc. Columbia, SC	24 hr refresher 40 hr 40 hr	May 83 Apr 85 Apr 86
A	NBC; Individual Protection and Decontamination Learning Resource Center Rock Island Arsenal, IL	1 hr	May 83
B	Operate the AN/PDR 54 Radiac Set Learning Resource Center Rock Island Arsenal, IL	1 hr	Apr 83
A, B, C	Tritium Measurement Techniques Radiation Research Group Material Technology Laboratory Ft. Belvoir, VA	24 hr	Nov 82

3. Additional Training:

Course	Duration	Completion
Radioactive Materials Transportation Course Afftrex Ltd Belvoir Research and Developement Center Ft. Belvoir, Va.	40 hr	Jan 85
Technical Transportation of Hazardous Materials MTMC-2 U.S. Army Defense Ammunition Center and School Savanna, IL	80 hr	Feb 84

4. Experience with Radionuclides

Radionuclide	Activity Per Source	Duration of Experience	Type of Experience
3H 60Co 63Ni 85Kr 90Sr-Y 137Cs 147Pm 226Ra 232Th 241Am Depleted Uranium	Varies from microcuries to 10 curie sources.	4 years	Handle and package at Army installations throughout the U.S., for transportation to licensed radioactive waste disposal sites.

5. General Health Physics Background.

Have been employed since 1982 as a Health Physicist for Headquarters, U.S. Army Armament, Munitions and Chemical Command (AMCCOM), Rock Island, IL. Major duties include: serving as AMCCOM Alternate Radiological Protection Officer; advising the Commanding General on radiological safety matters; preparing NRC license applications, amendments, and renewals for radioactive items of issue managed by AMCCOM; evaluating subordinate installations radiation safety programs for compliance with Federal and Army requirements; preparing portions of Army manuals, handbooks, and regulation dealing with radiation safety and waste disposal; providing certification, and direct the packaging, marking, labeling, and shipment of Army generated radioactive waste to licensed commercial burial sites; serving on the On-Scene Commander's (OSC) staff for response to radiation accidents/incidents.

NAME: Katheryn M LaFrenz
Health Physicist

DATE: June 25, 1986

EDUCATION:

BS Chemistry/biology, 1974, University of Iowa
included 16 semester hours physics and 8 semester hours in calculus

Medical Technology Degree, 1975, University of Iowa

Post Graduate study in Immunology, 1976, University of Western Illinois

CATEGORIES OF EXPERIENCE AND TRAINING:

A. Principles and Practices of Radiation Protection
B. Radioactivity Measurement Standardization and Monitoring Techniques
C. Mathematics and Calculations Basic to the Use and Measurement of Radioactivity
D. Biological Effects of Radiation

CATEGORY OF TRAINING	PLACE	DURATION	OTJ	FORMAL
A B C D	University of Iowa and VA Hospitals Laboratories, Iowa City, Ia.	1 year (1974-1975)	x	x
A B C D	Franciscan Medical Center Laboratory Radioimmunoassay Rock Island, Il	2 years (1975-1977)	x	
A B C D	University of Iowa Hospital Radioimmunoassay Laboratory	2 years (1977-1979)	x	x
A B	Caterpillar Tractor Co. Davenport, Ia x-ray diffraction, magnaflux	3 years (1979-1982)	x	x
A	Hazardous Material Transportation Transportation Skills, Inc. Chicago, Il	8 hrs (1981)		x
B C	Tritium Measurement Techniques Rock Island, Il	24 hrs (1982)		x
A B C D	Radiological Safety I Correspondence Course U S Army Institute for Professional Development	13 Credit Hrs (1983)		x

NAME: Katheryn M. LaFrenz

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CATEGORY OF TRAINING	PLACE	DURATION	OTJ	FORMAL
A D	Ionizing Radiation US Army Environmental Hygiene Agency	4 hrs (1983)		x
A B C	Calculate Total Dose, Time of Entry and Time of Stay Learning Resource Center Rock Island Arsenal	1 hr (1983)		x
A B C	Monitor for Radioactive Contamination Using AN/PDR60 Radiac Set	1 hr (1983)		x
A C D	Laser Safety Armament Materiel Command Field Safety Activity Charlestown, IN	24 hrs (1983)		x
A B	Hazardous Waste Management National Hazards Control Institute Rock Island, Il	8 hrs (1984)		x
A B C D	Occupational Radiation Safety Ft. Belvoir, NJ	80 hrs (1984)		x

EXPERIENCE WITH RADIATION:

Isotopes	Location	Use	Duration
H-3 I-125 Co-60 Cs-137 C-14	University of Iowa Hospital	Radioimmunoassay and Calibration	2 years
I-125 Co-60	Franciscan Medical Center	Radioimmunoassay and Calibration	2 years

NAME: Katheryn M. LaFrenz

DATE: June 25, 1986

MAJOR DUTIES:

Health Physicist for Headquarters, US Army Armament Munitions and Chemical Command, November 1982 - August 1984 and May 1985 - present. Duties include serving as alternate Radiological Protection Officer; Advising the Commanding General on radiological safety matters; preparing NRC license applications, amendments, and renewals for radioactive commodities managed by this command; Preparing portions of army manuals, handbooks, and regulations dealing with radiation safety; Serving on the On Scene Commander's Staff for response to radiation incidents or accidents; Providing assistance and review of NRC license and Department of Army Permit/Authorization applications from subordinate installations; Revewing radiation safety programs at subordinate installations and depots storing licensed items of supply; Interpreting technical policies, directives, regulations and laws issued by the NRC and Department of Defense Agencies and advising and justifying recommended measures for radiation protection and control relating to ionizing and nonionizing equipment, sealed sources and devices containing radioactive material; Interfacing with contractors, Headquarters staff elements, other Department of Defense agencies, Nuclear Regulatory Commission and other government and state agencies.