

DEPARTMENT OF THE ARMY UNITED STATES MILITARYFACADEMY

West Point, New York 18996 1

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MADN-PHYS (385-11m)

15 April 2005

MEMORANDUM FOR U.S. Nuclear Regulatory Commission, Region 1, Materials Licensing Section, 475 Allendale Rd, King of Prussia, Pennsylvania 19406

SUBJECT: Amendment to US Nuclear Regulatory Commission License BML-31-0210 '2-02, Docket No. 030-00897

- 1. Request that US Nuclear Regulatory Commission License BML-31-0210 2-02 issued to Department of Physics, US Military Academy be amended as follows:
- a. Request that COL(R) Brian Moretti be designated as the Radiation Safety Officer in place of MAJ Robert Prins. COL(R) Moretti has a Ph.D. in Nuclear Engineering from Rensselaer Polytechnic Institute and has been a member of the faculty in the Department of Physics since 1997 and has served as an Authorized User during that time. Dr. Moretti's document of training and experience with radioactive sources is attached. Dr. Moretti is familiar with all NRC requirements for this position. COT'SK
- b. Request that LTC Jeffrey Musk be designated as an Authorized User. LTC Musk has a Ph.D. in plasma physics from Cornell University and has been a member of the faculty in the Department of Physics since 2004. LTC Musk's document of training and experience with radioactive sources is attached. LTC Musk is familiar with all NRC requirements for this position.
- 2. The United States Military Academy (USMA) is a public undergraduate educational institution, accredited by the Middle States Association of Colleges and Schools, offering programs of instruction leading to the bachelors degree. The USMA is an activity of the United States Army and is supported by appropriated funds. As such it appears to meet your definition of a "nonprofit educational institution" (10 CFR 171.5). Request that USMA be exempted from any fees for this action.
- 3. Point of contact for licensing in the Department of Physics is COL Ed Naessens, (845) 938-3354.

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NMSS/RGNI MATERIALS-002

TRAINING AND RADIOISOTOPE EXPERIENCE

Brian E. Moretti

Education.

B.S. in physics from United States Military Academy, West Point, NY 1976.

ME in engineering physics from University of Virginia, Charlottesville, VA 1984.

Ph.D. Nuclear Engineering and Science from Rensselaer Polytechnic Institute, Troy, NY 1996.

Training. Training and experience at USMA under the supervision of COL Robert Cherry included calibration procedures and radiation safety procedures and requirements.

Category A: Principles and Practice of Radiation Protection

Category B: Radioactivity Measurement Standardization and Monitoring

Category C: Mathematics and Calculations Basic to the Use and Measurement

of Radioactivity

Category D: Biological Effects of Radiation Category E: Radioactive Waste Disposal

CATEGORY	LOCATION OF TRAINING	DATE/DURATION	TYPE OF TRAINING
A,B,C,D,E	Department of Nuclear Engineering,	1993-1997	Classes/Laboratory
	Rensselaer Polytechnic Institute, NY	•	Experience
A,B,C,D	Department of Nuclear Engineering	1982-1984	Classes/Laboratory
	and Engineering Physics, University of Virginia, VA		Experience
A,B,C,D	United States Military Academy	1974-1976; 1984-1987	Class/Experiments

Experience with Isotopes

ISOTOPE	TYPE OF EXPERIENCE	MAXIMUM ACTIVITY	DURATION OF EXPERIENCE
Uranium	Light Water Moderated Subcritical Assembly	2500 kg	1974-1976; 1984-1987 and 1997-present
Any byproduct material with atomic numbers 1-91	Sealed Sources	Not to exceed 10 mCi/source and 200 mCi total	-1974-1976; 1984-1987 and 1997-present
Cesium 137	Sealed Sources	50 mCi total for a single source	1974-1976; 1984-1987 and 1997-present
Plutonium 239	Sealed solid neutron sources (Monsanto)	80 grams total in 5 sealed containers; 1000 mCi each	1974-1976; 1984-1987 and 1997-present
Americium 241	Sealed Source	10 mCi	1974-1976; 1984-1987 and 1997-present
Cadmium 109	Sealed Source	25 mCi	1974-1976; 1984-1987 and 1997-present
Iron 55	Sealed Source (Isotope Products Laboratories Mdl AN-55-25)	25 mCi	1974-1976; 1984-1987 and 1997-present

TRAINING AND RADIOISOTOPE EXPERIENCE

Jeffrey H. Musk

Education.

B.S. in engineering physics from University of Maine, Orono, ME 1986.

M.S. in nuclear engineering from M.I.T., Cambridge, MA 1988.

M.S. in nuclear science from Cornell University, Ithaca, NY 2003.

Ph.D. in nuclear science from Cornell University, Ithaca, NY 2004.

Training. Training and experience at the Armed Forces Radiobiology Institute (AFRRI), Bethesda, MD, under the supervision of LTC Eric Daxon (USA) and CAPT Eric Kearsley (USN) and at the United States Military Academy (USMA), West Point, NY, under LTC Thomas Rosener (USA) included dosimetry procedures, calibration procedures and radiation safety procedures and requirements.

Category A: Principles and Practice of Radiation Protection

Category B: Radioactivity Measurement Standardization and Monitoring

Category C: Mathematics and Calculations Basic to the Use and Measurement

of Radioactivity

Category D: Biological Effects of Radiation Category E: Radioactive Waste Disposal

CATEGORY	LOCATION OF TRAINING	DATE/DURATION	TYPE OF TRAINING
A,B,C	Department of Physics, University	1982-1986	Classes/Laboratory
	of Maine, Orono, ME		Experience .
A,B,C,D	Department of Nuclear Engineering,	1986-1988	Classes/Laboratory
	M.I.T., Cambridge, MA		Experience
A,B,C,D,E	AFRRI, Bethesda, MD	1990-1993	Short Courses/Laboratory
	·	•	Experience/Experiements
A,B,C,D	USMA, West Point, NY	1995-1998 and 2004-	Class/Experiments
		present	
A,C	Cornell University, Ithaca, NY	2001-2004	Class

Experience with Isotopes

ISOTOPE	TYPE OF EXPERIENCE	MAXIMUM ACTIVITY	DURATION OF EXPERIENCE
Uranium	Light Water Moderated Subcritical Assembly	2500 kg	1995-1998 and 2004-present
Any byproduct material with atomic numbers 1-91	Sealed Sources	Not to exceed 10 mCi/source and 200 mCi total	1986-1988; 1990-1993; 1995 - 1998; 2004-present
Cesium 137	Sealed Sources, Cs-137 irradiators	Sealed soucees less than 50 mCi; ~5 Ci total for M.I.T. irradiator	1986-1988; 1990-1993; 1995 - 1998; 2004-present (sealed souces); 1986-1988; 1990- 1993 Cs-137 irradiators
Plutonium 239	Sealed solid neutron sources (Monsanto)	80 grams total in 5 sealed containers; 1000 mCi each	1995-1998 and 2004-present

LTC Jeffrey H. Musk, Training and Radioisotope Experience

Americium 241	Sealed Source	10 mCi	1995-1998 and 2004-present
Cadmium 109	Sealed Source	25 mCi	1995-1998 and 2004-present
Iron 55	Sealed Source (Isotope Products Laboratories Mdl AN-55-25)	25 mCi	1995-1998 and 2004-present
Cobalt 60	Theratron, AFRRI large scale irradiator	>200,000 Ci	1990-1993

This is to acknowledge the receipt	•		
includes an administrative review h	and to inform you that the initial processing which has been performed.		
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.			
Please provide to this office within 30 days of your receipt of this card			
Branch, who will contact you separ	warded to our License Fee & Accounts Receivable rately if there is a fee issue involved.		
Your action has been assigned Mail Control Number <u>136 9 34 (136 9 3 5</u> When calling to inquire about this action, please refer to this control number. You may call us on (610) 337-5398, or 337-5260.			
NRC FORM 532 (RI) (6-96)	Sincerely, Licensing Assistance Team Leader		

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BETWEEN:	: (FOR LFMS USE) : INFORMATION FROM LTS
License Fee Management Branch, ARM and Regional Licensing Sections	: Program Code: 03620 Status Code: 0 Fee Category: EX 3P 1D Exp. Date: 20111130 Fee Comments: 170.11(A)(4) V Decom Fin Assur Reqd: N
LICENSE FEE TRANSMITTAL	
A. REGION Z	
1. APPLICATION ATTACHED Applicant/Licensee: ARMY, DEPART Received Date: 20050425 , Docket No: 3000897 Control No.: 136934 License No.: 31-02102-02 Action Type: Amendment	IMENT OF THE
2. FEE ATTACHED Amount: Check No.:	
3. COMMENTS	
REF. 136915 Signed Date	Una-lacking
B. LICENSE FEE MANAGEMENT BRANCH (Che	eck when milestone 03 is entered //)
1. Fee Category and Amount:	
2. Correct Fee Paid. Application material Amendment Renewal License	ay be processed for:
3. OTHER	
Signed	đ

Date