



DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

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REPLY TO
ATTENTION OF
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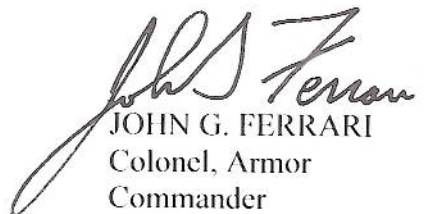
MEMORANDUM THRU Commander, US Army Test and Evaluation Command (CSTE-OP/
Gurvis Davis), 2202 Aberdeen Boulevard, Aberdeen Proving Ground, MD 21005-5001

FOR Chief, Nuclear Materials Licensing Branch, Nuclear Regulatory Commission, Region IV,
611 Ryan Plaza Drive, Suite 400, Arlington, TX 76011-4005

SUBJECT: Amendment Request for White Sands Missile Range (WSMR) USNRC License
SUB-734

1. The enclosed amendment documents for White Sands Missile Range US Nuclear Regulatory Commission License Number SUB-734 are provided for review and approval. The purpose of this amendment is to change the current Radiation Safety Officer and Alternate Radiation Safety Officer for this license.
2. This memorandum notifies you that Mr. Mike Hart has been replaced by Ms. Patricia Haworth as the Radiation Safety Officer and Ms. Mary Ellen Donahue as the alternate Radiation Safety Officer for this license.
3. Ms. Haworth's and Ms. Donahue's education and experience is outlined in the enclosure. Point of contact for this action is Ms. Haworth, Radiation Safety Officer, White Sands Missile Range Test Center, (575) 678-4869.

Encl
as


JOHN G. FERRARI
Colonel, Armor
Commander

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APPENDIX A

U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE BROAD SCOPE RADIATION SAFETY OFFICER

1. NAME OF RSO:

Patricia A. Haworth

2. EDUCATION:

BS General Science

3. CERTIFICATION

SPECIALITY BOARD

CATEGORY

MONTH AND YEAR
CERTIFIED

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING	LOCATION AND DATE OF TRAINING	CLOCK HOURS IN LECTURE/ LABORATORY	CLOCK HOURS OF SUPERVISED ON-THE-JOB EXPERIENCE
A. RADIATION PHYSICS AND INSTRUMENTATION	1. Univ. of Iowa, Iowa City, IA 1982-1983 2. Duane Arnold Energy Center (DAEC), Palo, IA 1984 3. Oak Ridge Assoc. University, IN 1988 4. Naval Weapons Station (NWS), Yorktown, VA 1999	1. 64 hrs 2. 24 hrs 3. 200 hrs 4. 80 hrs	1. NA 2. >2000 hrs 3. >2000 hrs 4. >2000 hrs
B. RADIATION PROTECTION	1, 2, 3, 4	1. 24 hrs 2. 24 hrs 3. 200 hrs 4. 80 hrs	1. NA 2. >2000 hrs 3. >2000 hrs 4. >2000 hrs
C. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	1, 2, 3, 4	1. 44 hrs 2. 12 hrs 3. 200 hrs 4. 80 hrs	1. NA 2. >2000 hrs 3. >2000 hrs 4. >2000 hrs
D. RADIATION BIOLOGY	1, 2, 3	1. 24 hrs 2. 16 hrs 3. 100 hrs 4. NA	1. NA 2. 500 hrs 3. 100 hrs 4. NA
E. RADIOPHARMACEUTICAL CHEMISTRY	NA	NA	NA

5. EXPERIENCE WITH RADIOISOTOPES

ISOTOPE	CI USED AT ONE TIME	LOCATION	CLOCK HOURS	TYPE OF USE
Ra ²²⁶ , Ra ²²⁸ , Sr ⁹⁰ , Am ²⁴¹	5 mCi	University of Iowa, International Technology Corp. (IT)	>2000 hrs	Laboratory
Co ⁶⁰ , Cs ¹³⁷ , Cr ⁵¹ , K ⁴⁰ , H ³ , Co ⁵⁷ , U ²³⁵ , U ²³⁸ , Pb ²¹⁰ , Tc ⁹⁹ , fission and activation products	10 kCi	DAEC, Fermi 2	>2000 hrs	Commercial Nuclear Power Plants
Ra ²²⁶ , Am ²⁴¹ , Kr ⁸⁵ , Sr ⁹⁰ , H ³ , Pm ¹⁴⁷ , Na ²² , DU, Th ²³² , Ni ⁶³ , Cd ¹⁰⁶ , Ir ¹⁹² , Co ⁶⁰ , Cs ¹³⁷ , Ba ¹³³ , Th ²³⁰ , C ¹⁴ , I ¹³¹ , Am ²⁴¹ , Be, Pu ²³⁹ , U ²³⁸ , U ²³⁵ , B ²¹⁰ , Pb ²¹⁰ , activation products	100 Ci	Rock Island Arsenal (RIA), Naval Weapons Station (NWS) Yorktown	>2000 hrs	Environmental cleanup, Radioactive waste, recycle, storage, disposal

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6. EXPERIENCE SUPERVISING USE OF RADIOISOTOPES

ISOTOPE	MAXIMUM ACTIVITY	LOCATION	CLOCK HOURS	TYPE OF USE
Ra ²²⁶ , Ra ²²⁸ , Sr ⁹⁰ , Am ²⁴¹	5 mCi	University of Iowa, International Technology Corp. (II)	>2000 hrs	Laboratory
Co ⁶⁰ , Cs ¹³⁷ , Cr ⁵¹ , K ⁴⁰ , H ³ , Co ⁵⁸ , U ²³⁵ , U ²³⁸ , Pb ²¹⁰ , Tc ⁹⁹ , fission and activation products	10 kCi	DAEC, Fermi 2	>2000 hrs	Commercial Nuclear Power Plants
Ra ²²⁶ , Am ²⁴¹ , Kr ⁸⁵ , Sr ⁹⁰ , H ³ , Pm ¹⁴⁷ , Na ²² , DU, Th ²³² , Ni ⁶³ , Cd ¹⁰⁹ , Ir ¹⁹² , Co ⁶⁰ , Cs ¹³⁷ , Ba ¹³³ , Th ²³⁰ , C ¹⁴ , I ¹³¹ , Am ²⁴¹ , Be, Pu ²³⁹ , U ²³⁸ , U ²³⁵ , Bi ²¹⁰ , Pb ²¹⁰ , activation products	100 Ci	Rock Island Arsenal, Naval Weapons Station Yorktown	>2000 hrs	Environmental cleanup, Radioactive waste, recycle, storage, disposal

7. PRACTICAL EXPERIENCE

ACTIVITY	LOCATION	EXPLANATION
PERFORMED SAFETY EVALUATIONS OF FACILITIES AND EQUIPMENT OF PROPOSED USES.	DAEC Fermi 2 IT	Health Physicist for Nuclear Power Generating Plants, evaluated facilities and equipment for repair and/or modification.
EVALUATED QUALIFICATIONS OF AUTHORIZED USERS AND INDIVIDUALS WORKING UNDER THE SUPERVISION OF AUTHORIZED USERS FOR PROPOSED USES.	DAEC Fermi 2	Evaluated contract individuals incoming to work refuel outages.
CONDUCTED A LABORATORY AUDIT PROGRAM. ◆ RESEARCH AND DEVELOPMENT LABS ◆ MEDICAL LABS - NUCLEAR MEDICINE, ONCOLOGY, ETC.	NWS	Member of and Supervised Inspections of Radiation facilities, Radiography, and Research Facilities.
MAINTAINED PERSONNEL MONITORING PROGRAM FOR DETERMINING EXTERNAL EXPOSURE ◆ SELECT APPROPRIATE DEVICES ◆ MONITORED EXPOSURE RECORDS ◆ ESTABLISHED EXPOSURE INVESTIGATIVE LEVELS	DAEC	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
MAINTAINED A BIOASSAY PROGRAM FOR DETERMINING INTERNAL EXPOSURE ◆ DETERMINED METHOD: IN-VIVO AND IN-VITRO ◆ ESTABLISHED ACTION LEVELS ◆ EMERGENCY FOLLOW-UP ACTIONS	DAEC	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
CALCULATED INTERNAL AND EXTERNAL RADIATION DOSES.	DAEC	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
MONITORED AND MAINTAINED ABSOLUTE AND OTHER SPECIAL FILTER SYSTEM ASSOCIATED WITH THE USE, STORAGE, OR DISPOSAL OF RADIOACTIVE MATERIAL.	DAEC	Health Physicist for an operating Nuclear Power Plant.
EVALUATED, SELECTED, DESIGNED, AND SUPERVISED MAINTENANCE OF PROCESS CONTROL AND CONFINEMENT SYSTEMS, SUCH AS GLOVEBOXES AND HOODS.	DAEC IT	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant, as well as, Analytical Group Leader for a Radiation Chemistry Laboratory.
PERFORMED SHIELDING EVALUATIONS, INCLUDING DETERMINATION OF TYPE AND AMOUNT NEEDED.	DAEC	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
CALCULATED RADIOACTIVE DECAY, BUILDUP, AND SECULAR AND TRANSIENT EQUILIBRIUM.	DAEC RIA	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.

ACTIVITY	LOCATION	EXPLANATION
EVALUATED, SELECTED, MAINTAINED, AND EFFECTIVELY USED RESPIRATORY PROTECTIVE EQUIPMENT.	DAEC Fermi 2	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
MAINTAINED A CONTAMINATION CONTROL PROGRAM <ul style="list-style-type: none"> ◆ AMBIENT RADIATION SURVEYS ◆ CONTAMINATION SURVEYS ◆ AIR SAMPLING PROGRAM ◆ SEALED SOURCE LEAK TESTING ◆ SAMPLE ANALYSIS 	DAEC Fermi 2	Health Physicist and ALARA Coordinator for an operating Nuclear Power Plant.
INVESTIGATIONS <ul style="list-style-type: none"> ◆ OVEREXPOSURES ◆ ACCIDENTS, SPILLS, LOSSES, THEFTS ◆ UNAUTHORIZED RECEIPTS, USES, TRANSFERS, DISPOSALS ◆ MISADMINISTRATIONS 	Fermi 2	Health Physicist assigned to investigate all radiation related Technical Specification deviation incidents.
CONDUCTED RADIATION PROTECTION TRAINING FOR FACILITY PERSONNEL. <ul style="list-style-type: none"> ◆ AUTHORIZED USERS AND LAB WORKERS <ul style="list-style-type: none"> ◆ ANIMAL CARETAKERS ◆ NURSING STAFF ◆ INCINERATOR OPERATORS <ul style="list-style-type: none"> ◆ ANCILLARY STAFF ◆ SECURITY ◆ WASTE PROCESSORS/HANDLERS 	DAEC	Health Physics, Instrument and Controls, Chemistry, and waste handling personnel at my Power Plant.
DEVELOPED RADIATION SAFETY MANUALS	DAEC	SOPS and Health Physics Training Plans.
SELECTED INSTRUMENTATION ASSOCIATED WITH THE MEASUREMENT OF RADIATION <ul style="list-style-type: none"> ◆ SURVEY INSTRUMENTS (GM, ION CHAMBER, SCINTILLATION) ◆ COUNTING EQUIPMENT ◆ SPECIAL EQUIPMENT (DOSE CALIBRATOR, DIRECT READING DOSIMETER, AIR SAMPLER) 	DAEC Fermi 2 IT	Made recommendations for procurement of all mentioned items.
PERFORMED INSTRUMENT CALIBRATIONS	IT	Counters, multichannel analyzers, and alpha specs.
COORDINATED MATERIAL INVENTORY AND ACCOUNTABILITY PROGRAM <ul style="list-style-type: none"> ◆ MONITORED RECEIPT, USE, DECAY, TRANSFER, AND DISPOSAL 	IT RIA	Involved in these operations while ongoing in the organizations.
COORDINATED RADIOACTIVE WASTE DISPOSAL PROGRAM <ul style="list-style-type: none"> ◆ EFFLUENT MONITORING <ul style="list-style-type: none"> ◆ COLLECTION ◆ TREATMENT ◆ PACKAGING ◆ DISPOSAL 	DAEC Fermi 2 RIA NWS	Supervised Effluent Monitoring Program, including sample collection, packaging, and shipping. Determined waste streams and appropriate treatment, as well as, brokered radioactive waste including packaging, shipping, and disposal.
PREPARED RADIOACTIVE PACKAGES FOR TRANSPORTATION.	Fermi 2 RIA	Determined waste streams and appropriate treatment, as well as, brokered radioactive waste including packaging, shipping, and disposal.

ACTIVITY	LOCATION	EXPLANATION
DEVELOPED AND MAINTAINED A FACILITY EMERGENCY PLAN FOR RESPONDING TO RELEASE OF RADIOACTIVE MATERIAL.	DAEC	Health Physicist for an operating Nuclear Power Plant.
DETERMINED NEED FOR FINANCIAL ASSURANCE FOR DECOMMISSIONING.		
DEVELOPED AND MAINTAINED DECOMMISSIONING FINANCIAL ASSURANCE FUNDING PLAN.		

8. PROFESSIONAL ORGANIZATIONS

Health Physics Society

9. AWARDS, SCIENTIFIC PRESENTATIONS AND PUBLICATIONS

Iowa Electric 1986 Outstanding Performance Award

Who's Who of American Women 1988/1989

Who's Who in Finance and Industry 1989/1990

Department of the Army Commendations Aug. 21, 1995, Jan. 5, 1997, and Dec. 15, 1997

Department of the Army Commanders Award for Civilian Service Jan. 15, 1999

Department of the Navy Special Act Awards Aug. 22, 2001 and Mar. 7, 2003

10. SIGNATURE AND CERTIFICATION

I certify that, to the best of my knowledge and belief, all of my statement is true, correct, complete, and made in good faith.

SIGNATURE

DATE SIGNED (Month, day, year)

September 14, 2010

E-Signed by PATRICIA A. HAWORTH
Verify Authenticity with Advanced

U.S. NUCLEAR REGULATORY COMMISSION

**TRAINING AND EXPERIENCE
BROAD SCOPE RADIATION SAFETY OFFICER**

1. NAME OF RSO: Mary E. Donahue

2. EDUCATION:
B.S. Biology
B.S. Nuclear Medicine
Science

3. CERTIFICATION

SPECIALITY BOARD	CATEGORY	MONTH AND YEAR CERTIFIED
National Registry of Radiation Protection Technologist (NRRPT)		December 1993

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING	LOCATION AND DATE OF TRAINING	CLOCK HOURS IN LECTURE/ LABORATORY	CLOCK HOURS OF SUPERVISED ON-THE-JOB EXPERIENCE
A. RADIATION PHYSICS AND INSTRUMENTATION	1. 5 week Applied Health Physics Course, Oak Ridge Associated University (ORAU), 1989	>300 hours	>4000 hours
	2. Environmental Monitoring Course, ORAU, 1990		
	3. NRRPT Exam Prep Course, Scientific Ecology, 1993		
	4. Radiological Sciences & Protection – certification Review for Health Physics, Skrable Enterprises, 1994		
	5. Gamma-Ray Spectroscopy for Nuclear Materials Accounting Course, Los Alamos National Laboratory (LANL), June 1999		
	6. Advanced Neutron NDA Techniques Course, LANL, 1999		
	7. DOT, NRC & IATA Requirements for Shipping Radioactive Material, Radiation Safety Academy, 2010		
	8. Nondestructive Assay of Special Nuclear Material Holdup, LANL, 2000		
	9. NNSA Nuclear Weapon Refresher Training, Sandia National Laboratory, 2003		
	10. Comprehensive Industrial Hygiene: Practical Applications of Basic Principles, Harvard School of Public Health, 2008		
	11. Incarnate Word College – Nuclear Medicine Program Internship – Brooks Army Medical Center, Ft Sam Houston and School of Aerospace Medicine, Brooks AFB, 1981		
	12. Nuclear Medicine Science Office, RSO for Army license, Martin Army Hospital, Ft. Benning, GA, 1982-1985		
	13. Public Health Physicist, Kansas Department of Health, 1985 – 1988		
	14. Radiation Control Inspector, Nevada Radiological Health Section, 1988 – 1990		
	15. Radioactive Waste Management Specialist, Nevada Test Site, 1990 – 1993		
	16. Health Physicist, Honeywell, FM&T, Kansas City Plant, 1993 - 2010		
	17. Health Physicist, White Sands Missile Range 2010 - present		
B. RADIATION PROTECTION	1,2,3,4,6,7,8,9,9,10, 11,12, 13, 14, 15,16,	>300 hours	>4000 hours

	17, 18		
C. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	1,2,3,3,4,6,7,8,9,10,11, 12, 13, 14, 15, 16, 17, 18	>300 hours	> 4000 hours
D. RADIATION BIOLOGY	1,2,3,3,4,6,7,8,9,10,11, 12, 13, 14, 15, 16, 17, 18	>300 hours	>4000 hours
E. RADIOPHARMACEUTICAL CHEMISTRY	10,11	50 hour hours	>4000 hours

5. EXPERIENCE WITH RADIOISOTOPES

ISOTOPE	CI USED AT ONE TIME	LOCATION	CLOCK HOURS	TYPE OF USE
Tl-201, Tc-99m, I-131, Ga-67, Xe-133,	10 mCi	Brook Army Medical Hospital, School of Aerospace Medicine	500 hours	Nuclear medicine technologist
Ba-133, Cs-137, H-3, Co-57, Pu-239, Cd-109, Sr-90, Am/Li 241, PuBe-239, Ni-63, Bi-210, Co-60, DU-238, Tc-99, Po-210, various fission products	85 mCi	Kansas City Plant, Nevada Test Site	>2000 hours	Check complement of radiation protection equipment and radioactive waste
Co-60, U-235, U-238 activation products, fission products, Cs-137, Ra-226, Am-241	144,000 Ci gamma irradiators	White Sands Missile Range	1000 hours	Test, research and equipment calibration

6. EXPERIENCE SUPERVISING USE OF RADIOISOTOPES

ISOTOPE	MAXIMUM ACTIVITY	LOCATION	CLOCK HOURS	TYPE OF USE
Tl-201, Tc-99m, I-131, Ga-67, Xe-133,	10 m	Martin Army Hospital, State of Nevada	800 hours	RSO for Army License, Inspector for State of Nevada Radioactive Material Licenses
Ba-133, Cs-137, H-3, Co-57, Pu-239, Cd-109, Sr-90, Am/Li 241, PuBe-239, Ni-63, Bi-210, Co-60, DU-238, Tc-99, Po-210, various fission products	85 mCi	Kansas City Plant, Nevada Test Site	2000 hours	Manage use of sealed sources and manufacturing with DU, generation of radioactive waste

7. PRACTICAL EXPERIENCE

ACTIVITY	LOCATION	EXPLANATION
PERFORMED SAFETY EVALUATIONS OF FACILITIES AND EQUIPMENT OF PROPOSED USES.	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.
EVALUATED QUALIFICATIONS OF AUTHORIZED USERS AND INDIVIDUALS WORKING UNDER THE SUPERVISION OF AUTHORIZED USERS FOR PROPOSED USES.	US Army Ft Benning GA, State of Nevada, Kansas City Plant	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.

<p>CONDUCTED A LABORATORY AUDIT PROGRAM</p> <ul style="list-style-type: none"> ◆ RESEARCH AND DEVELOPMENT LABS ◆ MEDICAL LABS - NUCLEAR MEDICINE, ONCOLOGY, ETC. 	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, manage the radiation safety program for a Department of Energy manufacturing site</p>
<p>MAINTAINED PERSONNEL MONITORING PROGRAM FOR DETERMINING EXTERNAL EXPOSURE</p> <ul style="list-style-type: none"> ◆ SELECT APPROPRIATE DEVICES ◆ MONITORED EXPOSURE RECORDS ◆ ESTABLISHED EXPOSURE INVESTIGATIVE LEVELS 	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>
<p>MAINTAINED A BIOASSAY PROGRAM FOR DETERMINING INTERNAL EXPOSURE</p> <ul style="list-style-type: none"> ◆ DETERMINED METHOD: IN-VIVO AND IN-VITRO ◆ ESTABLISHED ACTION LEVELS ◆ EMERGENCY FOLLOW-UP ACTIONS 		
<p>CALCULATED INTERNAL AND EXTERNAL RADIATION DOSES.</p>	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>
<p>MONITORED AND MAINTAINED ABSOLUTE AND OTHER SPECIAL FILTER SYSTEM ASSOCIATED WITH THE USE, STORAGE, OR DISPOSAL OF RADIOACTIVE MATERIAL</p>	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>
<p>EVALUATED, SELECTED, DESIGNED, AND SUPERVISED MAINTENANCE OF PROCESS CONTROL AND CONFINEMENT SYSTEMS, SUCH AS GLOVEBOXES AND HOODS.</p>	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site.</p>
<p>PERFORMED SHIELDING EVALUATIONS, INCLUDING DETERMINATION OF TYPE AND AMOUNT NEEDED.</p>	<p>US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>
<p>CALCULATED RADIOACTIVE DECAY, BUILDUP, AND SECULAR AND TRANSIENT EQUILIBRIUM.</p>	<p>Nevada Test Site</p>	<p>Waste management, characterization and site performance assessment</p>

ACTIVITY	LOCATION	EXPLANATION
EVALUATED, SELECTED, MAINTAINED, AND EFFECTIVELY USED RESPIRATORY PROTECTIVE EQUIPMENT.		
MAINTAINED A CONTAMINATION CONTROL PROGRAM <ul style="list-style-type: none"> ◆ AMBIENT RADIATION SURVEYS ◆ CONTAMINATION SURVEYS ◆ AIR SAMPLING PROGRAM ◆ SEALED SOURCE LEAK TESTING ◆ SAMPLE ANALYSIS 	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.
INVESTIGATIONS <ul style="list-style-type: none"> ◆ OVEREXPOSURES ◆ ACCIDENTS, SPILLS, LOSSES, THEFTS ◆ UNAUTHORIZED RECEIPTS, USES, TRANSFERS, DISPOSALS ◆ MISADMINISTRATIONS 	US Army Ft Benning GA, State of Nevada, Kansas City Plant	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site.
CONDUCTED RADIATION PROTECTION TRAINING FOR FACILITY PERSONNEL <ul style="list-style-type: none"> ◆ AUTHORIZED USERS AND LAB WORKERS <ul style="list-style-type: none"> ◆ ANIMAL CARETAKERS ◆ NURSING STAFF ◆ INCINERATOR OPERATORS <ul style="list-style-type: none"> ◆ ANCILLARY STAFF ◆ SECURITY ◆ WASTE PROCESSORS/HANDLERS 	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.
DEVELOPED RADIATION SAFETY MANUALS	US Army Ft Benning GA, State of Nevada, Kansas City Plant	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site.
SELECTED INSTRUMENTATION ASSOCIATED WITH THE MEASUREMENT OF RADIATION <ul style="list-style-type: none"> ◆ SURVEY INSTRUMENTS (GM, ION CHAMBER, SCINTILLATION) ◆ COUNTING EQUIPMENT ◆ SPECIAL EQUIPMENT (DOSE CALIBRATOR, DIRECT READING DOSIMETER, AIR SAMPLER) 	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.
PERFORMED INSTRUMENT CALIBRATIONS	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.
COORDINATED MATERIAL INVENTORY AND ACCOUNTABILITY PROGRAM <ul style="list-style-type: none"> ◆ MONITORED RECEIPT, USE, DECAY, TRANSFER, AND DISPOSAL 	US Army Ft Benning GA, State of Nevada, Kansas City Plant, White Sands Missile Range	Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.

<p>COORDINATED RADIOACTIVE WASTE DISPOSAL PROGRAM</p> <ul style="list-style-type: none"> ◆ EFFLUENT MONITORING ◆ COLLECTION ◆ TREATMENT ◆ PACKAGING ◆ DISPOSAL 	<p>US Army Ft Benning GA, Nevada Test Site, Kansas City Plant, White Sands Missile Range</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>
<p>PREPARED RADIOACTIVE PACKAGES FOR TRANSPORTATION.</p>	<p>US Army Ft Benning GA, Kansas City Plant, White Sands Missile Range</p>	<p>Manage hospital radiation safety program, inspect various radioactive materials licenses for the Nevada Radiological Health Department, and manage the radiation safety program for a Department of Energy manufacturing site. Health Physicist for WSMR test and research facilities.</p>

ACTIVITY	LOCATION	EXPLANATION
DEVELOPED AND MAINTAINED A FACILITY EMERGENCY PLAN FOR RESPONDING TO RELEASE OF RADIOACTIVE MATERIAL.	Kansas Department of Health	Health Physicist for the environmental monitoring and emergency planning section.
DETERMINED NEED FOR FINANCIAL ASSURANCE FOR DECOMMISSIONING		
DEVELOPED AND MAINTAINED DECOMMISSIONING FINANCIAL ASSURANCE FUNDING PLAN.		

8. PROFESSIONAL ORGANIZATIONS

Health Physics Society
Counsel of Radiation Protection Program Directors

9. AWARDS, SCIENTIFIC PRESENTATIONS AND PUBLICATIONS

Presenter at the Sally Ride Science Festival sponsored by the University of Missouri Kansas City, 2005 and 2007

10. SIGNATURE AND CERTIFICATION

I certify that, to the best of my knowledge and belief, all of my statement is true, correct, complete, and made in good faith.

SIGNATURE
Mary Donahue

DATE SIGNED (Month, day, year)
12-20-2011

TRAINING & EXPERIENCE WITH RADIOACTIVE MATERIALS (Please Type or Print Legibly)		NAME & ORGANIZATION Mary E. Donahue, WSV-P, WSMR, NM 88002 SSN: <u>8882</u>		Mil <u>X</u> DAC _____ CONTR _____		DATE December 9, 2011	
TYPE TRAINING		WHERE TRAINED	DURATION OF TRAINING	On the Job (Check)		Formal Course (Check)	
				YES	NO	YES	NO
1. PRINCIPLES AND PRACTICES OF RADIATION PROTECTION		Oak Ridge Associated University (ORAU)	5 weeks	X		X	
2. RADIOACTIVITY MEASUREMENT STANDARDIZATION AND MONITORING TECHNIQUES AND INSTRUMENTS		ORAU	5 weeks	X		X	
3. MATHEMATICS & CALCULATIONS BASIC TO THE USE AND MEASUREMENT OF RADIOACTIVITY		ORAU	5 weeks	X		X	
4. BIOLOGICAL EFFECTS OF RADIATION		ORAU	5 weeks	X		X	
EXPERIENCE WITH IONIZING RADIATION (ACTUAL USE OF RADIOISOTOPES OR EQUIVALENT EXPERIENCE)							
ISOTOPE	MAXIMUM ACTIVITY	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE			
Co-60	15,000 Ci per source	Gamma Range Facility	July 2010 - December 2010	Hands on training at GRF, emergency procedures, prepare RWP, HP support for operations, up loading and testing sources, annual maintenance			
Flash x-ray system	NA	REBA, PI 538	July 2010 - December 2010	HP support for operations, prepare RWT, survey exposure cell, area monitoring			
Various Isotopes DU, Cs-137 Pu/Be, Th-232, Co-60, H-3,	20 mCi	Honeywell, FM&T	Jan 1993 - June 2010	Used sealed sources for instrument and counting equipment calibration, surveyed areas using radioactive sources and x-ray systems, supported chemical etching of DU, provided radiation safety training, managed low level radioactive waste			

Various Isotopes	20 mCi	Nevada Test Site	October 1990- December 1992	HP support at LLRW disposal site, instrument calibration, survey waste containers, vehicles and monitor area
Various Isotopes	20 mCi	State of Nevada Bureau of Radiation Control	October 1988 - October 1990	Inspected various RAM licenses, x-ray facilities and the LLRW site and shipments
Various Isotopes	10 mCi	Kansas Department of Health and Environment	January 1986 - October 1988	Emergency planning, environmental monitoring and LLRW
Various Isotopes	10 mCi	Health Physicist, Martin Army Hospital, Ft. Benning, GA	October 1982 - December 1985	RSO on NRC license , survey radioactive material use areas and x-ray systems, provided dosimetry and radiation safety training
Tc-99m, Tl-201, Ga-67, Xe-133, I-131, I-123	10 mCi	School of Aerospace Medicine - Nuclear Medicine Clinic	July 1977-October 1982	Perform nuclear medicine imaging, prepare radiopharmaceuticals , survey hot lab,

Founded in 1976

National Registry of Radiation Protection Technologists

Hereby Certifies that

Mary E. Donahue

Has satisfactorily met the recognized standards established by the National
Registry of Radiation Protection Technologists and is hereby registered as a:

Radiation Protection Technologist



Chairman

Secretary

December 30, 1993

Date

IMWE-WSM-SO (385-11h)

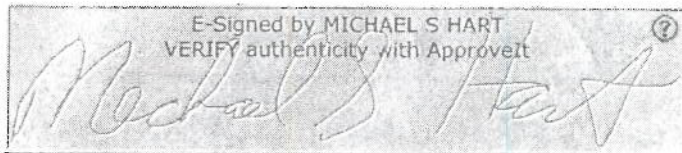
09 December 2010

MEMORANDUM FOR TEDT-WSV-NP

SUBJECT: Approval of Ms. Mary Ellen Donahue as a Health Physicist

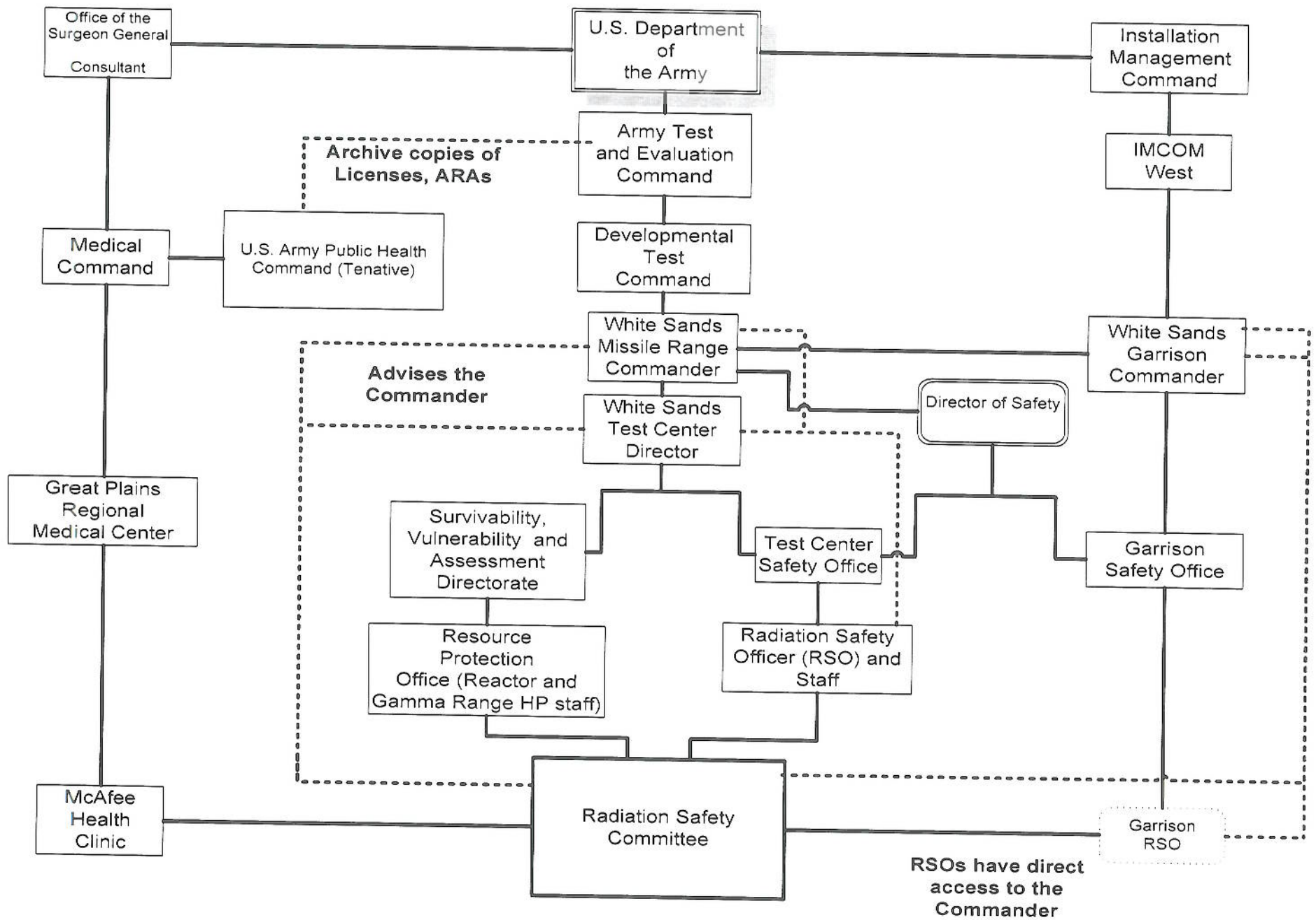
1. Reference memorandum, TEDT-WS-SV-NP, subject: Request for approval of Ms. Mary Ellen Donahue to serve as Health Physicist, 03 December 10, enclosed.
2. A Qualification and Certification Board was held for Ms. Donahue on 15 November 10. The board recommended approval of Ms. Donahue as Health Physics Monitor for the Gamma Range, Eldorado, PI-538, LINAC and REBA facilities. At the 07 December 2010 White Sands Radiation Safety Committee meeting, the committee granted approval to Ms. Donahue.
3. Point of contact is the undersigned, WSM-SO, 678-1211.

E-Signed by MICHAEL S HART
VERIFY authenticity with ApproveIt



MICHAEL S. HART
Recorder
Radiation Safety Committee, WSMR

CF:
Chairman, RSC





DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

REPLY TO
ATTENTION OF

TEDT-WS-CG

28 December 2011

MEMORANDUM FOR

WST	WSM-ZA	ED	WST-SO
WSV	IG	SJA	WSR
WSM	WSVNP	WSR-CF	WSM-SO
NAWC	TGOR	WSVA	AMSRT-CS-WS-T
MCHM-MHC	SMDC-HD	AMSAM-TMD-GC-WS	

SUBJECT: Appointment of Radiation Safety Committee

1. Effective this date the persons whose names appear below are appointed as the Radiation Safety Committee, as indicated:

GRUNOW, RANDY J., GS-15, WHITE SANDS INSTALLATION SAFETY OFFICER,
USA WSMR PARENT (W04WAA) WSMR, NM 88002-5048, (WS-SF) - CHAIRMAN
DURAN, ROBERT M., GS-13, USA WSMR PARENT (W04WAA) WSMR, NM
88002-5048 (WSM-SO) – ALTERNATE CHAIRMAN
HART, MICHAEL S., GS-13, GARRISON RADIATION SAFETY OFFICER, USA
WSMR PARENT (W04WAA) WSMR, NM 88002-5048 (WSM-SO) – RECORDER
BARNES STEPHEN A., LTC, DIRECTOR, HEALTH SERVICES, USA WSMR
MCAFEE HEALTH CLINIC (W0Q301) WSMR, NM 88002-5520, (MCHM-MHC)
DONAHUE, MARY E., GS-11, USA WSMR PARENT (W04WAA) WSMR, NM
88002-5158 (WSSVNP)
HAWORTH, PATRICIA, GS-12, TEST CENTER RADIATION SAFETY OFFICER, USA
WSMR PARENT (W04WAA) WSMR, NM 88002-5048 (WST-SO)
LOPEZ, ARTHUR A., GS-13 USA WSMR PARENT (W04WAA) WSMR, NM
88002-5048 (WS-NSO)
NAKAZATO, REGINALD, GS-11, USA TEST MEASUREMENT SUPPORT CENTER
(W46AWN) WSMR, NM 88002-5528 (AMSAM-TMD-C-WS)
RAINES, BRET, K. GS-12 NAVAL ORDNANCE TEST STATION (61762)
WSMR, NM 88002-5510 (NAWC-WD)
CHAVEZ, MARCUS, GS-13, WSMR PARENT (W04WAA) WSMR, NM 88002-5113
(WSR-CF)
CHAMBERLAIN, FELICIA A., DJ-03, ARMY RESEARCH LAB, WSMR, NM
88002-5513 (ARL) AMSRL-CS-WS-T

TEDT-WS-CG

SUBJECT: Appointment of Radiation Safety Committee

BERUMEN, MANUEL, GS-13, USA WSMR PARENT (W04WAA) WSMR, NM
88002-5178 (WSV-AT)

REYNOLDS, STEVE, GS-13, USA SMDC HELSTF DIRECTORATE HUNTSVILLE, AL
35805-9036 (A011) - DUTY STATION WSMR, NM (SMDC-HD)

SANDERS, KENNETH, M., CTR, DEPUTY FOR AIR FORCE, 46TH TEST GROUP,
88002 - DUTY STATION WSMR, NM (AF)

THORNTON, ROGER, RADIATION SAFETY OFFICER, UXB INTERNATIONAL INC.,
DUTY STATION WSMR, NM

2. Effective this date the persons whose names appear below are appointed as official observers for the Radiation Safety Committee, as indicated:

CRISP, DAVID W., GS-13, USA WSMR PARENT (W04WAA) WSMR, NM
88002, (WS-IG)

NICHOLSON, INDIA, GS-13, USA WSMR PARENT (W04WAA) WSMR, NM
88002-5048, (WS-JA)

3. Authority: AR 385-10, paragraph 7-2.a, Army Safety Program, 23 August 07.

4. Purpose: RSC acts as an advisory committee to the Commander for review of the policies and conduct of the WSMR Radiation Safety Program, and will meet approximately quarterly and at the call of the Chairman.

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

6. Special Instructions: This memo supersedes memo, TEDT-WS-CG, 12 December 2011, SAB.

FOR THE COMMANDER:

TEDT-WS-CG

SUBJECT: Appointment of Radiation Safety Committee

E-Signed by MEDEIROS.CAROL.J.1231448302
VERIFY authenticity with ApproveIt
MEDEIROS.CAROL.J.1231

CAROL J. MEDEIROS
Secretary of the General Staff

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Appointment of Radiation Safety Officer (RSO), Laser Safety Officer (LSO), Radiofrequency Safety Officer (RFSO) and Alternates

1. Effective this date the persons whose names appear below are appointed as the RSO, LSO, RFSO and Alternates as indicated:

HAWORTH, PATRICIA A., GS-12, USA WSMR PARENT (W04WAA) WSMR, NM
88002-5048 (WST-SO) – Primary
DONAHUE, MARY E., GS-11, USA WSMR PARENT (W04WAA) WSMR, NM

2. Authority: Army Pamphlet 385-24, The Army Radiation Safety Program, 24 August 07.
3. Purpose: To provide the Commander, WSMR, the Radiation Safety Committee and radiation users with advice and assistance on the control of hazards to health and safety from radioactive materials, ionizing radiation protecting devices, lasers and microwave; and to supervise the WSMR Radiation Safety Program for the Commander, WSMR
4. Period: Until officially relieved or released from appointment.
5. Special Instructions: Alternate Radiation Safety Officers are to act, when designated by the Commander, WSMR, for the Radiation Safety Officer in his absence. This memo supersedes memo TEDT-WS-CG, 1 November 2011, SAB.

FOR THE COMMANDER:

E-Signed by MEDEIROS.CAROL.J.1231448302
VERIFIED authenticity with ApproveIt
MEDEIROS.CAROL.J.1231

CAROL J. MEDEIROS
Secretary of the General Staff

DISTRIBUTION:

TEDT-WS-ED

TEDT-WSR

TEDT-WSM

TEDT-WS-JA

IMSW-WSM-PW

46 TG Det1/TGOR

AMSAM-TMD-GC-WS

HELSTF

TEDT-WS-CSTEDT-WS-TC

IMSW-WSM-ZA

TEDT-WSV

TEDT-WS-IG

TEDT-WST-SO

IMSW-WSM-SO

NSWC PHD WSMR

AMSRT-CS-WS-T



DATE
02/01/2012

NAME AND ADDRESS OF APPLICANT AND/OR LICENSEE

Department of the Army
U.S. Army White Sands Missile Range
ATTN: Commander (STEWS-DES-R (RPO))
White Sands, NM 88002-5048

LICENSE NUMBER

SUB-734

MAIL CONTROL NUMBER

576814

LICENSING AND/OR TECHNICAL REVIEWER

This is to acknowledge the receipt of your:

☒ LETTER and/or ☐ APPLICATION DATED: 01/09/2012

The initial processing, which included an administrative review, has been performed.

☒ AMENDMENT ☐ TERMINATION ☐ NEW LICENSE ☐ RENEWAL

- ☒ There were no administrative omissions identified during our initial review.
- ☐ This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.
- ☐ Your application for a new NRC license did not include your taxpayer identification number. Please fill out NRC Form 531, located at the following link:

<http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>

Send the completed NRC Form 531, by facsimile, to the following number: (301) 415-5387

A copy of your action has been emailed to our License Fee and Accounts Receivable Branch, in our Headquarters office in Rockville, MD. You will be contacted separately if there is a fee issue involved.

Your application has been assigned the above listed **MAIL CONTROL NUMBER**. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region IV
U. S. Nuclear Regulatory Commission
DNMS/NMSB - B
1600 E. Lamar Boulevard
Arlington, TX 76011-4511
(817) 200-1103 or (817) 200-1140

BETWEEN:

Accounts Receivable/Payable
and
Regional Licensing Branches

[FOR ARPB USE]
INFORMATION FROM LTS

Program Code: 11220
Status Code: Pending Amendment
Fee Category: 2C
Exp. Date: 08/31/2013
Fee Comments: NOT SHIELDING
Decom Fin Assur Req: N

License Fee Worksheet - License Fee Transmittal

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: ARMY, DEPARTMENT OF THE
Received Date: 01/24/2012
Docket Number: 4007086
Mail Control Number: 576814
License Number: SUB-734
Action Type: Amendment

2. FEE ATTACHED

Amount: _____

Check No.: _____

3. COMMENTS

Signed: Colleen Murnahan

Date: 1-30-2012

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / /)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment: _____

Renewal: _____

License: _____

3. OTHER _____

Signed: _____

Date: _____