

DEPARTMENT OF THE ARMY US ARMY ABERDEEN TEST CENTER

400 COLLERAN ROAD ABERDEEN PROVING GROUND, MARYLAND 21005-5059 NMSBZ

1 6 APR 2008

TEDT-AT-CSS

MEMORANDUM THRU

This is writes US Army Developmental Test Command (DTC), Directorate for Mission Support (TEDT-RIS / Dr. Tanya Oxenberg), 314 Longs Corner Road, Aberdeen Proving Ground, MD 21005-5055 US Army Test and Evaluation Command, (CSTE-SP), 4501 Ford Avenue, Alexandria, le 12 May 08

VA 22302-0001

FOR US Nuclear Regulatory Commission (NRC), Region I, Mr. Dennis Lawyer, Division of Nuclear Materials Safety, 475 Allendale Road, King of Prussia, PA 19406

SUBJECT: Request for Amendment of NRC Byproduct Material License No. 19-00294-19

- 1. Reference the NRC License No. 19-00294-19, Docket No. 030-04523.
- 2. The Aberdeen Test Center (ATC) requests a license amendment to add radium moisture/density gauges and a radium sealed source to our byproduct material license 19-00294-19 (encl). This is in accordance with the NRC jurisdiction of discrete sources effective 30 Nov 07. The ATC possesses Radium-226/Beryllium nuclear moisture/density gauges and a radium sealed source under a US Army Radiation Authorization Number A-19-10-02. The moisture/density gauges and the sealed source do not exceed threshold values for changes in the Decommissioning Funding Plan.

3. The point of contact for this matter is Dr. Tanya P. Oxenberg, ATC Radiation Safety Officer, DSN 38-1309, 410-393-1309, or via email tanya.oxenberg@us.army.mil.

Encl

Colonel, FA Commanding

142400 NMSS/RGN1 MATERIALS-002 NRC FORM 313 (10-2005)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2008

10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008 Estimated burden per response to comply with this mandatory collection request: 4.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW. APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH IF YOU ARE LOCATED IN: DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS U.S. NUCLEAR REGULATORY COMMISSION APPLICATIONS TO: WASHINGTON, DC 20555-0001 NATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS: LISLE, IL 60532-4352 IF YOU ARE LOCATED IN: ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO: SEND APPLICATIONS TO: LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 03004523 U.S. NUCLEAR REGULATORY COMMISSION, REGION I 611 RYAN PLAZA DRIVE, SUITE 400 ARLINGTON, TX 76011-4005 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415 PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS. 2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code) 1. THIS IS AN APPLICATION FOR (Check appropriate item) A. NEW LICENSE Commander, US Army Aberdeen Test Center B. AMENDMENT TO LICENSE NUMBER 19-00294-19 400 Colleran Road Aberdeen Proving Ground, MD 21005-5059 RENEWAL OF LICENSE NUMBER 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION 3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED Tanya P. Oxenberg $_{\mathfrak{I}}$ \mathfrak{Ph} $_{\mathfrak{I}}$. US Army Aberdeen Test Center Aberdeen Proving Ground, MD 21005-5059 TELEPHONE NUMBER (410)2A8-1309 SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER, THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE 5. RADIOACTIVE MATERIAL 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED. See attached. Element and mass number, b. chemical and/or physical form; and c. malkimum amount which will be possessed at any one time.
 See attached. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE. 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. See attached. See attached. 10. RADIATION SAFETY PROGRAM 9. FACILITIES AND EQUIPMENT. No change. <u>See attached.</u> 12. LICENSE FEES (See 10 CFR 170 and Section 170.31) 11. WASTE MANAGEMENT. AMOUNT FEE CATEGORY Exempt \$ 0.00 No change. 13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 38, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION. CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE RODNEY COMMANISING BONLA دسامات OHN FOR NRC USE ØNLY COMMENTS FEE LOG FEE CATEGORY AMOUNT RECEIVED CHECK NUMBER YPE OF FEE APPROVED BY DATE

NRC FORM 313 (10-2005)

PRINTED ON RECYCLED PAPER

Radioactive Material: 19-00294-19, Docket Number 030-04523

1. Additional Material to be added to NRC license 19-00294-19: Radium 226/Beryllium

Chemical and physical form: Sealed sources (2) Seaman Nuclear Model C-200, (1) Seaman Nuclear Model C-300.

Maximum amount that licensee may possess at any one time under this license: (2) model C-200 source 4.5 millicuries (mCi) each and (1) model C-300 source 4.5 mCi each not to exceed 13.5 mCi total.

2. Ra-226

Chemical and physical form: Sealed source (Isotope Specialty Co., Model ICS 2070 or equivalent)

Maximum amount that licensee may possess at any one time under this license: (1) source, 25 mCi; 25 mCi total.

Purpose for which licensed material will be used: 19-00294-19, Docket Number 030-04523

Research and development as defined in 10 CFR 30.4 and as a sealed source in the Seaman Nuclear moisture/density meter to evaluate field conditions at ATC test sites. The radium sealed source will be used as a check source for instrument function testing.

Individuals responsible for radiation safety program and their training experience: 19-00294-19, Docket Number 030-04523

Dr. Tanya P. Oxenberg replaces Mr. John C. Beckman as Radiation Safety Officer. Dr. Oxenberg's training is attached.

ra226 f4

Training for individuals working in/or frequenting restricted areas: 19-00294-19, Docket Number 030-04523

ATC employees working in or frequenting restricted area containing radiation hazards are trained on the specific type of radioactive material hazard whether it be a radioactive commodity or a sealed source device. Employees receive Commonly Used Radioactive Material in Military Equipment Training. Radiation Safety Team staff receive additional training to operate the Seaman Nuclear moisture density gauges in accordance with the manufacture, SOP 385-7304 Seaman Nuclear Density/moisture Meters and guidance under the ATC Radiation Permit requirements.

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Radiation safety program: 19-00294-19, Docket Number 030-04523

ATC Regulation 385-1, Ionizing and Nonionizing Radiation Protection, dated 10 Apr 03, previously submitted with a license amendment dated 3 Oct 07, is the document describing the radiation safety program.

Training for individuals working in/or frequenting restricted areas: 19-00294-19, Docket Number 030-04523

ATC employees working in or frequenting restricted area containing radiation hazards are trained on the specific type of radioactive material hazard whether it be a radioactive commodity or a sealed source device. Employees receive Commonly Used Radioactive Material in Military Equipment Training. Radiation Safety Team staff receive additional training to operate the Seaman Nuclear moisture density gauges in accordance with the manufacture, SOP 385-7304 Seaman Nuclear Density/moisture Meters and guidance under the ATC Radiation Permit requirements.

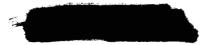
Radiation Safety Program: 19-00294-19, Docket Number 030-04523

ATC Regulation 385-1, Ionizing and Non-ionizing Radiation Protection, dated 10 Apr 03, previously submitted with a license amendment dated 3 Oct 07, is the document describing the radiation safety program.

CURRICULUM VITAE

TANYA PALMATEER OXENBERG





EDUCATION

Ph.D. in Environmental Engineering and Chemistry, The Johns Hopkins University, Baltimore, MD. May 2007. Dissertation: Subsurface transformations of depleted uranium (DU) at Aberdeen Proving Ground, MD. Advisor: Dr. Edward J. Bouwer.

M.S. in Environmental Engineering and Science, The Johns Hopkins University, Baltimore, MD, June 1998.

M.S. in Health Physics, Georgia Institute of Technology, Atlanta, GA. September 1997. Thesis: The use of catchboxes to minimize the impact to the environment from testing depleted uranium penetrators. Advisor: Dr. Nolan Hertel.

B.S. in Biology (with Health Physics option) and B.A. in French, Virginia Polytechnic Institute and State University, Blacksburg, VA. June 1978.

PROFESSIONAL EXPERIENCE

Radiation Safety Staff Officer (July 1, 2004 – present). U. S. Army Test and Evaluation Command, 4501 Ford Avenue, Alexandria, VA 22302-1458. I manage the command's radiation safety program involving ionizing and nonionizing radiation sources at White Sands Missile Range, NM; Yuma Proving Ground, AZ; Dugway Proving Ground, UT; Aberdeen Test Center, MD; Redstone Technical Test Center, AL; Tropic Test Center, Panama; and Cold Regions Test Center at Ft. Greely, AK. I also serve as a member of the Army Reactor Council and the Army Radiation Safety Council.

Health Physicist (June 15, 1981 – present). U. S. Army Developmental Test Command (formerly U. S. Army Test and Evaluation Command, until October 1, 1999), 314 Longs Corner Road, Aberdeen Proving Ground, MD 21005-5055. I have managed the command's radiation safety program at eight test centers in the U.S. and the Republic of Panama, which included 16 Nuclear Regulatory Commission licenses for byproduct, source, and special nuclear material. While in this position I have managed contracts with Los Alamos National Laboratory and Battelle Pacific Northwest Laboratory to study the fate and transport of DU; developed ecological risk assessments at test centers where DU was used; conducted radiation safety and nuclear surety program evaluations at the test centers and research reactors, and managed environmental radiation monitoring programs and environmental documentation to support DU testing. I also initiated the decommissioning of Jefferson Proving Ground, IN; developed supplemental regulations to Army regulations governing the use of radioactive material and nuclear reactor safety; and developed the command's radioactive waste management program.

Visiting Fellow (September 1, 1995 to August 30, 1996), Army Environmental Policy Institute, Atlanta, GA 30318. I provided technical support to the Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health on issues and research involving DU. I also served as Contracting Officer's Representative on three contracts with universities studying DU transport: (1) Georgia Institute of Technology—identify the impact of thermodynamic speciation on environmental fate of DU, (2) University of New Mexico—environmental transport modeling, and (3) University of Alaska, Fairbanks—identify environmental and policy actions required to mitigate contaminant migration.

Acting Chief, Safety Office (January 13 to May 13, 1991), U. S. Army Aberdeen Test Center, Aberdeen Proving Ground (APG), MD 21005. I supervised a staff of 14 safety engineers, safety specialists, health physicists, and clerical personnel in the management and administration of the safety program of a major test center involved in conducting RDT&E of ammunition, weapon, vehicle, and nuclear systems. I coordinated the several safety investigations conducted by the Army Safety Center, Army Criminal Investigation Division, and Army Technical Center for Explosive Safety following a fatal accident. I also developed team building between safety and test personnel.

Acting Chief, Environmental Management Division (December 12, 1988 to January 20, 1989), U.S. Army Aberdeen Proving Ground, MD 21005. I temporarily supervised 18 environmental engineers, environmental protection specialists, health physicists, technicians, and clerical personnel. I managed one of the largest and most complex environmental programs in the Army, which included installation restoration, natural resources management, solid and hazardous waste management programs, NEPA documentation.

Radiation Safety Officer (August 2, 1988 to January 20, 1989), U.S. Army Aberdeen Proving Ground, MD 21005. I drafted the installation radiation protection regulation, which was later implemented, and developed the environmental assessment for the central radioactive waste storage facility. I also initiated the radiation safety committee and the inventory of ionizing and nonionizing sources used by tenant activities at APG.

Health Physicist (November 5, 1979 to June 10, 1981), Radiation Management Corporation, U.S. Army Aberdeen Proving Ground, MD 21005. As the on-site health physicist at a DU test firing range, I conducted radiation surveys, collected mixed media environmental samples, collected passive and active air samples in and around the test firing building, and calibrated instruments. I also packaged, surveyed, and shipped radioactive material and taught radiation safety classes to DU test support personnel.

Health Physics Technician (April 2 to October 31, 1979), Virginia Electric Power Company, North Anna Power Station, Mineral, VA 23117. I performed area radiation surveys, collected and analyzed environmental and personnel dosimetry, and collected and analyzed effluent samples. I also operated and calibrated proportional counters, a germanium-lithium (Ge-Li) gamma spectrometer, survey instruments (α -, β -, γ , and neutron detectors), and a liquid scintillation counter. I packaged, surveyed, and shipped radioactive waste to commercial burial sites and worked refueling and steam generator repair outages.

PROFESSIONAL AFFILIATIONS

Health Physics Society American Chemical Society 1982 – present 1997 – present

HONORS AND AWARDS

2007 Performance Award, U. S. Army Developmental Test Command

2006 Achievement Medal for Civilian Service, U. S. Army Developmental Test Command

2006 Performance Award, U. S. Army Developmental Test Command

2005 Performance Award, U. S. Army Developmental Test Command

2003 Army Superior Unit Award, U. S. Army Developmental Test Command

2001 Performance Award, U. S. Army Developmental Test Command

1999 Sustained Superior Performance, U. S. Army Test and Evaluation Command

1998 Sustained Superior Performance Award, U. S. Army Test and Evaluation Command

1997 Sustained Superior Performance Award, U. S. Army Test and Evaluation Command

1997 Student Award, Health Physics Society Annual Meeting, Poster: The use of catch boxes to minimize environmental contamination from testing depleted uranium tank penetrators.

1996 Sustained Superior Performance Award, U. S. Army Test and Evaluation Command

1995 Sustained Superior Performance Award, U. S. Army Test and Evaluation Command

1995 AMC Health Physicist of the Year, U.S. Army Materiel Command

1994 Sustained Superior Performance Award, U. S. Army Test and Evaluation Command

1993 Special Act, Army Environmental Policy Institute

1991 Sustained Superior Performance, U. S. Army Test and Evaluation Command

1991 Superior Civilian Service Award, U.S. Army Combat Systems Test Activity

1990 Outstanding Leader, Girl Scouts of Central Maryland

1990 Sustained Superior Performance, U. S. Army Test and Evaluation Command

1990 Commander's Award for Civilian Service, U.S. Army Combat Systems Test Activity

1985 TECOM Commanders Award, U. S. Army Test and Evaluation Command

1984 TECOM Commanders Award, U. S. Army Test and Evaluation Command

RESEARCH EXPERIENCE

Research Grant

Co-authored proposal to study fate and transport of DU for the U.S. Army Aberdeen Test Center at Aberdeen Proving Ground, MD. Funded \$544,000. Principal investigator: Dr. Edward J. Bouwer.

Doctoral Research, The Johns Hopkins University, 1998-2005

Conceived and optimized procedures for the field investigation of DU transport and the laboratory study of biological transformations of DU. Developed procedures and managed a field laboratory. Experiments included the use of ion chromatography, high purity Ge gamma spectroscopy, liquid scintillation, and flame atomic absorption, as well as the use of a kinetic phosphorescence analyzer and a total organic carbon analyzer. Wrote project reports and presented findings at scientific meetings.

Masters Research, Georgia Institute of Technology, 1995-1997

Performed a literature review of environmental monitoring data and reports of Army DU firing ranges. Collected, maintained, and statistically evaluated test firings of DU ammunition into catchboxes. Performed risk and cost analysis of remediation and disposal of DU contaminated soil from firing ranges.

TEACHING EXPERIENCE

The Johns Hopkins University, 1998-1999

Lectured on and demonstrated microscope use, aseptic techniques, culture preparation, and gram staining for introductory laboratory for the Engineering Microbiology course. Graded laboratory write-ups.

The Johns Hopkins University, 1998-2001

Lectured on radioactive waste disposal for the Hazardous Waste course. Developed and graded homework assignments.

U.S. Army Test and Evaluation Command, 1980-1990

Lectured on principles of radiation safety to Army employees at Aberdeen and Yuma Proving Grounds. Lectured on as low as reasonably achievable (ALARA) principles and demonstrated wipe-test procedures to personnel testing military systems containing radioactive material at several Army installations.

PUBLICATIONS

Journal Articles - Peer Reviewed

Dong, W., Xie, G., Miller, T. R., Franklin, M. P., Oxenberg, T. P., Bouwer, E. J., Ball, W. P. and Halden, R. U., 2006. Sorption and Bioreduction of Hexavalent Uranium at a Military Facility by the Chesapeake Bay. *Environmental Pollution*, 142, 132-142.

Conference Proceedings

- Williams, R., McDonald, D. C., Melton, E., Mullins, W., Dwight, L., Blevins, E. E., and Oxenberg, T. P. (2007). "Repair and design modifications of a source transfer tube at a high-dose gamma irradiation facility." Abstracts of Papers Presented at the Fifty-second Annual Meeting of the Health Physics Society, Portland, Oregon, S99.
- Oxenberg, T. P., Ball, W. P., Stone, A. T., and Bouwer, E. J. (2006). "Distribution and Transport of Depleted Uranium (DU) in Soils and Natural Waters at Aberdeen Proving Ground, MD." 18th World Congress of Soil Science, Philadelphia, PA.
- Dong, W., Oxenberg, T. P., Ball, W. P., Stone, A. T., and Bouwer., E. J. (2004). "Influence of soil organic matter (SOM) on depleted uranium (DU(VI)) distribution and fate at Aberdeen Proving Ground (APG), MD." 227th American Chemical Society National Meeting, Anaheim, CA.
- Dong, W., Oxenberg, T. P., Ball, W. P., Stone, A. T., and Bouwer, E. J. (2004). "Sorption and desorption characteristics of depleted uranium (DU) at Aberdeen Proving Ground (APG), MD." 227th American Chemical Society National Meeting, Anaheim, CA.

- Oxenberg, T. P., and Bouwer, E. J. (2003). "Transport of depleted uranium oxidation products in a field study site." Abstracts of Papers Presented at the Forty-eighth Annual Meeting of the Health Physics Society, San Diego, S206.
- Xie, G., Oxenberg, T. P., Dong, W., Kalmykov, A., Franklin, M. P., Bouwer, E. J., and Halden, R. U. (2003). "Sorption, bioavailability and bioreduction of U(VI) in sediments from Aberdeen Proving Ground." 103rd General Meeting of the American Society for Microbiology, Washington, DC.
- Oxenberg, T. P., Saunders, F. M., Rosson, R. R., and Kahn, B. (1999). "Environmental monitoring to assess mobilization and transport of depleted uranium in soils and water." Abstracts of Papers Presented at the Forty-fourth Annual Meeting of the Health Physics Society, Philadelphia, S179.
- Oxenberg, T. P., and Ebinger, M. H. (1997). "Decommissioning Jefferson Proving Ground for restricted release." Abstracts of Papers of the American Chemical Society, 214, 66-NUCL.
- Oxenberg, T. P. (1997). "The use of catch boxes to minimize environmental contamination from testing depleted uranium tank penetrators." Abstracts of Papers Presented at the Forty-Second Annual Meeting of the Health Physics Society, San Antonio, TX, S28.
- Ebinger, M. H., and Oxenberg, T. P. (1997). "Modeling exposure to depleted uranium in support of decommissioning at Jefferson Proving Ground, Indiana." WM '97, HLW, LLW, Mixed Wastes and Environmental Restoration Working Towards a Cleaner Environment, Tucson.
- Ebinger, M. H., Wenz, G., Oxenberg, T. P., and Hanson, W. R. (1996). "Environmental sampling at remote sites based on radiological screening assessments." Abstracts of Papers Presented at the Forty-first Annual Meeting of the Health Physics Society, Seattle, S65.
- Ebinger, M. H., Dunfrund, F. L., and Oxenberg, T. P. (1996). "A screening model for depleted uranium testing using environmental radiation monitoring data." Abstracts of Papers Presented at the Forty-first Annual Meeting of the Health Physics Society, Seattle, S65.
- Blevins, E. E., Wenz, G. R., Aaserude, R. A., Oxenberg, T. P., and Dunfrund, F. L. (1996).

 "Control of radium dials and other items containing NORM in the U.S. Army."

 NORM/NARM: Regulation and Risk Assessment, 29th Midyear Topical Meeting of the Health Physics Society, Scottsdale, Arizona, 161-164.
- Ebinger, M. H., Hanson, W. R., Oxenberg, T. P., and Herring, R. E. (1995). "Depleted uranium risk assessment at Jefferson Proving Ground." Abstracts of Papers Presented at the Fortieth Annual Meeting of the Health Physics Society, Boston, S68.
- Shelton, S. P., Daxon, E. G., Kowalski, R. T., Lindsay, D. O., O'Brien, G. P., Oxenberg, T. P., Rael, J. E., Silva, D. G., Smith, R. A., Stone, S. J., Strickland, L., Thomson, B. M., and Tomei, F. T. (1995). "Health and environmental consequences of depleted uranium use in the U.S. Army." Abstracts of Papers Presented at the Fortieth Annual Meeting of the Health Physics Society, Boston, MA, S67.
- Oxenberg, T. P., and Los, M. (1995). "Depleted uranium waste minimization efforts within the Army." WM '95, HLW, LLW, Mixed Wastes and Environmental Restoration --Working Towards a Cleaner Environment, Tucson.

- Blevins, E. E., Matcek, G. J., Wenz, G. R., and Oxenberg, T. P. (1995). "Ionizing and nonionizing radiation training at White Sands Missile Range." *Health Physics Training and Education, 28th Midyear Topical Meeting of the Health Physics Society*, Charleston, South Carolina, 254-260.
- Oxenberg, T. P., Herring, R. H., and Dunfrund, F. L. (1994). "Recovery and reuse of depleted uranium penetrators to reduce radioactive waste and soil contamination." 27th Midyear Topical Meeting of the Health Physics Society Managing Radioactive and Mixed Wastes, Albany, NY.
- Oxenberg, T. P., and Davis, L. S. (1994). "Recycling armor plate contaminated with depleted uranium." 27th Midyear Topical Meeting of the Health Physics Society Managing Radioactive and Mixed Wastes, Albany, NY.
- Oxenberg, T. P., Ebinger, M. H., and Herring, R. E. (1994). "Decommissioning vs. long term ecological risks of residual depleted uranium at Jefferson Proving Ground." Abstracts of Papers Presented at the Thirty-ninth Annual Meeting of the Health Physics Society, San Francisco, S16.
- Oxenberg, T. P., and Davis, L. S. (1993). "Construction of catch boxes at an Army test center to enhance recovery of depleted uranium projectiles and limit the spread of contamination."

 Abstracts of Papers Presented at the Thirty-Eighth Annual Meeting of the Health Physics Society, Atlanta, S62.

Reports

- Ebinger, M. H., and Oxenberg, T. P. (1997). "Modeling exposure to depleted uranium in support of decommissioning at Jefferson Proving Ground, Indiana." *LA-UR-96-3907*, Los Alamos National Laboratory, Los Alamos, NM.
- Army Environmental Policy Institute. (1995). "Health and environmental consequences of depleted uranium use in the U. S. Army: technical report." Army Environmental Policy Institute, Atlanta.

Presentations/Seminars

- Oxenberg, T.P. (2007). "Decommissioning Army installations." Presented to the Nuclear Regulatory Commission Region I, King of Prussia, PA on October 18, 2007.
- Oxenberg, T.P. (2006). "Environmental fate and transport of depleted uranium (DU) at APG." Presented at the Heavy Metals Forum 06, Baltimore, MD on March 8, 2006.
- Oxenberg, T.P. (2004). "Environmental fate of depleted uranium (DU)." Presented to Senator Edward M. Kennedy at Aberdeen Proving Ground, MD on June 18, 2004.
- Oxenberg, T.P. (2004). "Environmental fate of depleted uranium (DU)." Presented at the Depleted Uranium Weapons: Toxic Contaminant or Necessary Technology? symposium at the Massachusetts Institute of Technology, Cambridge, MA on March 6, 2004.
- Oxenberg, T.P. (2001). "Studies of DU in the environment at Army test ranges." Presented at the DU mini-conference, Aberdeen, MD, on July 18, 2001.
- Oxenberg, T.P. (1998). "Decommissioning a DU test range for restricted release." Presented at the Georgia Institute of Technology, Department of Nuclear Engineering and Health Physics graduate seminar in Atlanta, GA on May 15, 1998.

- Oxenberg, T.P., Blevins, E.E., Hart, M.S., Wenz, G.R., Huffmyer, R.C., Dunfrund, F.L., and Herring, R. (1998). "Radiation program management within the U.S. Army Test and Evaluation Command." Presented at the 31st Midyear Topical Meeting of the Health Physics Society, Mobile, AL, on February 9, 1998.
- Oxenberg, T. P., and Ebinger, M. H. (1997). "Decommissioning Jefferson Proving Ground for restricted release." Presented at the University of Nevada, Las Vegas, Department of Health Physics graduate seminar on September 12, 1997.
- Ebinger, M.H. and Oxenberg, T.P. (1997). "Evaluation of exposure of an ecological receptor to depleted uranium in support of Army base closure." Presented at the 82nd Annual Meeting of the Ecological Society of America in Albuquerque, NM, August 1997.
- Oxenberg, T. P. (1997). "The use of catch boxes to minimize environmental contamination from testing depleted uranium tank penetrators." Thesis defense, presented at Georgia Institute of Technology, Atlanta, GA, on July 29, 1997.
- Oxenberg, T.P. (1997). "Processes influencing the transport and fate of DU at APG." Presented at Picatinny Arsenal on July 15, 1997.
- Oxenberg, T.P. (1996). "Health and environmental effects of U.S. DU testing." Presented at Eskmeals Test Range, Cumbria, UK, on June 20, 1996.
- Oxenberg, T.P. (1996). "Health and environmental effects of U.S. DU testing." Presented at Ministry of Defence, London, UK, on June 18, 1996.
- Oxenberg, T.P. (1996). "Health and environmental effects of U.S. DU testing." Presented to Etablissement Technique de Bourges, Bourges, France, on June 14, 1996.
- Oxenberg, T.P. (1996). "DU technical report: findings and conclusions." Presented to Sherri W. Goodman, Deputy Under Secretary of Defense for Environmental Security, Washington, DC, on January 4, 1996.
- Oxenberg, T.P. (1995). "Investigation of long-term fate of depleted uranium at TECOM test ranges." Presented to Gilbert F. Decker, Assistant Secretary of the Army, Research, and Development, and Acquisition, Washington, DC, March 20, 1995.
- Oxenberg, T. P. (1995). "U.S. Army Test and Evaluation Command licenses." Presented to Office of Nuclear Material Safety and Safeguards, Nuclear Regulatory Commission, Rockville, MD, February 15, 1995.
- Oxenberg, T.P. (1993). "Health and environmental effects of U.S. DU testing." Presented to MG Richard Tragemann, APG, MD on July 29, 1993.
- Peters, H. and Oxenberg, T.P. (1989). "Safety and environmental aspects of testing depleted uranium (DU)." Presented at the depleted uranium in-process review, Washington, DC, on February 22, 1989.

This is to acknowledge the receipt of your letter/application dated HIGH 2003 (5/16/22-Band to inform you that the initial processing which includes an administrative review has been performed. HIGH 2003 (5/16/22-Band to inform you that the initial processing which includes an administrative review 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	
A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved. Your action has been assigned Mail Control Number 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