



**U.S. Department of Labor
Occupational Safety and Health Administration
Salt Lake Technical Center
8660 South Sandy Parkway
Sandy, UT 84070**



Phone: 801-233-4900
FAX: 801-233-5000

DATE: 29 February, 2008
TO: U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-4005
FROM: Jeffrey C Lodwick, Ph.D. *JCL*
SUBJECT: LICENSE AMENDMENT

RECEIVED

FEB 29 2008

DNMS

This is an amendment to NRC License Number 43-17059-01, expiration date 30 June, 2014 (present amendment number 13). John C. Germ retired 03 January, 2008. Effective 04 January, 2008 Jeffrey C. Lodwick is the Radiation Safety Officer for NRC License Number 43-17059-01.

Please make the following change to License Number 43-17059-01:

Paragraph 11.B: The Radiation Safety Officer for this license is Jeffrey C. Lodwick.

Attachment: Curriculum Vitae



PERSONAL INFORMATION

Telephone (Day): 801.233.4913
Telephone (Evening)

lodwick.jeffrey@dol.gov

EDUCATION

- Ph.D.** University of Cincinnati. College of Medicine, Cincinnati, Ohio 45221. Environmental and Industrial Hygiene. August, 2003.
- M.S.** University of Cincinnati. College of Engineering, Cincinnati, Ohio 45221. Health Physics. December, 1996.
- B.S.** University of Cincinnati. College of Engineering, Cincinnati, Ohio 45221. Nuclear Engineering. June, 1995.

EMPLOYMENT

US Department of Labor Occupational Safety and Health Administration **09/03 to present**
Directorate of Science, Technology, and Medicine
Salt Lake Technical Center
Sandy, Utah 84070

Health Physicist

- Member of OSHA Health Response Team.
- OSHA's technical expert for ionizing radiation, non-ionizing radiation, and laser safety.
- Coordinator of OSHA Radiological Specialized Response Team.
- Represents OSHA on Federal Radiological Monitoring and Assessment Center's Health and Safety, Mission Analysis, and Operations working groups.
- Represents Department of Labor on Federal Radiological Preparedness Coordinating Committee.
- Radiation Safety Officer for OSHA Salt Lake Technical Center

University of Kentucky **05/02 to 7/03**
2365 Harrodsburg Road Ste. B150
Lexington, Kentucky 40504

Assistant Professor

- Provide Health Physics support for a mortality study at the Paducah Gaseous Diffusion Plant.
- Gathered and reviewed health physics records for internal exposure monitoring and external exposure monitoring at the Paducah plant to be used for the mortality study.
- Interviewed former plant workers about chemical and radiological hazards encountered at the facility.

EMPLOYMENT (continued)

Westat

1650 Research Blvd.
Rockville, Maryland 20850

08/02 to 7/03

Health Physicist

- Provide Health Physics support for the Health-related Energy Research Branch at the National Institute for Occupational Safety and Health.
- Perform internal exposure assessment for a mortality study of Department of Energy chemical laboratory workers.

Horizon Environmental Inc.

9403 Kenwood Road, D105
Cincinnati, Ohio 45242

06/01 to 02/02

Safety Specialist

- Provided Occupational Safety and Health support at the Fernald Environmental Management Project.
- Revised site Industrial Hygiene procedures.
- Assisted with the internal review of the Integrated Safety Management program.
- Assisted with resolving safety concerns reported through the Employee Concern Program.
- Assisted in resolving Occupational Safety and Health concerns identified by Quality Assurance audits.

Associated Western Universities

4190 South Highland Drive, Suite 211
Salt Lake City, Utah 84124

05/00 to 05/01

Occupational Safety and Health Intern

- Provided Occupational Safety and Health support at the Fernald Environmental Management Project (FEMP).
- Revised all site Medical procedures.
- Assisted with a successful application for site induction into the Department of Energy Voluntary Protection Program (DOE-VPP).

EMPLOYMENT (*continued*)

University of Cincinnati
College of Medicine
Cincinnati, Ohio 45267

09/98 to 06/02

Research Assistant

- Provided health physics support for the radon exposure reconstruction project for former Feed Materials Production Facility (FMPC) workers.
- Review historical documents pertaining to measured radon levels at the FMPC.
- Assist with assigning radon exposures specific to year and location around the FMPC using a radon transport algorithm supplemented with historical radon data.
- Measured radon progeny contained in window glass around the Fernald Environmental Management Project with the purpose of augmenting transport model predictions.
- Developed a calibration phantom positioning system for evaluating the effect that leg position has on x-ray fluorescence measurements of stable lead in bone.
- Evaluated measurement uncertainties associated with x-ray fluorescence measurements of stable lead in the tibia and in the patella.

University of Cincinnati
College of Engineering
Cincinnati, Ohio 45221

01/97 to 08/98

Research Assistant

- Developed and produced a cortical bone substitute material to be used in a calibration phantom for the in vivo x-ray fluorescence measurements of stable lead in bone.
- Assisted in the fabrication of an anthropomorphic leg calibration phantom to be used for x-ray fluorescence measurements of stable lead in vivo.
- Performed lung solubility study for samples of uranium compounds from the Fernald Environmental Management Project.
- Fabricated an anthropomorphic calibration phantom for the in vivo measurement of radionuclides in the patella.
- Performed patella phantom inter-laboratory comparison between the Fernald Environmental Management Project, Savannah River Site, and Oak Ridge National Lab.
- Provided weekly biological samples to the Fernald Environmental Management Project for their bioassay quality assurance program.

PUBLICATIONS

1. Richard W Hornung, Susan M Pinney, Jeffrey Lodwick, George G Killough, David E Brewer, and James Nasuta: "Estimation of radon exposures to workers at the Fernald Feed Materials Production Center 1952-1988". Journal of Exposure Science and Environmental Epidemiology: Online, 9 January 2008
2. T. Heffernan; H. Spitz; J. Lodwick; J. Neton; M. Soldano: "Solubility of airborne uranium compounds at the Fernald Environmental Management Project". Health Physics 80(3):255-262; 2001.
3. H. Spitz; M. Jenkins; J. Lodwick; R. Bornschein: "A new anthropometric phantom for calibrating in vivo measurements of stable lead in the human leg using x-ray fluorescence". Health Physics 78(2):159-169; 2000.
4. H. Spitz; J. Lodwick: "Design, fabrication, and evaluation of a new calibration phantom for in vivo measurements of bone seeking radionuclides". Radiation Protection Dosimetry 89:275-282; 2000.

PATENTS

1. Patent Number: US 6,362,471 B1. Design of a calibration phantom for in vivo measurements of stable lead or radioactivity in bone. March 26, 2002.

PRESENTATIONS

1. J. Lodwick; H. Spitz; Camille Lodwick; Robert Bornschein: "New anthropometric phantoms for calibrating in vivo x-ray fluorescence measurements of stable lead in bone". Fifth International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications. Bologna, Italy. June, 2002.
2. J. Lodwick; H. Spitz: "Evaluation of the effects that leg position and the fibula have on in-vivo x-ray fluorescence measurements of stable lead in the tibia". University of Cincinnati Second Annual Graduate Student Research/Scholarship Forum. Cincinnati, Ohio. March, 2001.
3. J. Lodwick; H. Spitz: "Evaluation of the positional effects of the leg on in vivo x-ray fluorescence measurements of stable lead in the leg". National Occupational Research Agenda Research Symposium. Cincinnati, Ohio. October, 2000.
4. C. Horn; J. O'Hare; J. Lodwick; W. Kassing; H. Spitz: "Improving calibration for in vivo measurements of stable lead in bone using x-ray fluorescence". Health Physics Society Annual Meeting. Philadelphia, Pennsylvania. June, 1999.
5. T. Heffernan; H. Spitz; J. Lodwick; J. Neton; M. Soldano: "Solubility of Airborne Uranium Compounds at the Fernald Environmental Management Project". Health Physics Society Annual Meeting. Philadelphia, Pennsylvania. June, 1999.
6. J. Lodwick; H. Spitz: "Production of Cortical Bone Substitute Material. Department of Energy Inter-calibration Workshop. Savannah River, South Carolina. May, 1997.

ACCEPTANCE REVIEW MEMO (ARM)

Licensee: Dept of Labor, OSHA - Sandy, UT **License No.:** 43-17059-01
Docket No.: 030-12126 **Mail Control No.:** 471713
Type of Action: Amend **Date of Requested Action:** 02-29-08
Reviewer Assigned: **ARM reviewer(s):** Torres

Response	Deficiencies Noted During Acceptance Review
	<input type="checkbox"/> Open ended possession limits. Submit inventory. Limit possession. <input type="checkbox"/> Submit copies of latest leak test results. <input type="checkbox"/> Add IC L.C./Fingerprint LC, add SUNSI markings to license. <input type="checkbox"/> Confirm with licensee if they have NARM material.

Reviewer's Initials: _____ **Date:** _____

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Request for unrestricted release Group 2 or >. Consult with Bravo Branch.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Termination request < 90 days from date of expiration
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other)
<input type="checkbox"/> Yes	<input type="checkbox"/> No	TAR needed to complete action.

Branch Chief's and/or HP's Initials: _____ **Date:** _____

SUNSI Screening according to RIS 2005-31

Yes No **Sensitive and Non-Publicly Available** if any item below is checked

General guidance:

- _____ RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule
- _____ Exact location of RAM (whether = or > than Category 3 or not)
- _____ Design of structure and/or equipment (site specific)
- _____ Information on nearby facilities
- _____ Detailed design drawings and/or performance information
- _____ Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

- _____ RAM quantities and inventory
- _____ Manufacturer's name and model number of sealed sources & devices
- _____ Site drawings with exact location of RAM, description of facility
- _____ RAM security program information (locks, alarms, etc.)
- _____ Emergency Plan specifics (routes to/from RAM, response to security events)
- _____ Vulnerability/security assessment/accident-safety analysis/risk assess
- _____ Mailing lists related to security response

Branch Chief's and/or HP's Initials: RTC **Date:** 3/5/08

Checklist to Ensure That Radioactive Material Will Be Used as Intended

Applicant Information:

Control No. 471713

Name: Dept of Labor, OSHA - Sandy, UT	Type of Request: Amend Program Code(s): 03123
Location: UT	License No.: 43-17059-01 Docket No.: 030-12126

STEP 1, ITEM A - INITIAL SCREENING

<p>Instructions for Step 1: Complete Step 1 for all applications. If Step 1, Items A and B, are "YES" then do not complete Step 2. Sign and date the completed form and add it to ADAMS as Non-Sensitive and Non-Publicly Available. If a "NO" response is indicated for Item A or Item B, add the completed form to ADAMS as Sensitive and Non-Publicly Available, and complete Step 2 (Additional Screening). If the type of use is subject to a Security Order, complete Step 3, Item A, without delay. If the additional requirements for increased controls will be applied or voided, complete Step 3, Item B, without delay.</p>	YES or NO
A. The applicant is a known entity or a licensee transferring control to a known entity. This determination has been made using the screening criteria in Worksheet A below.	Yes

Worksheet A

<p>Instructions for Worksheet A: Answer each of the 6 questions below by placing a "Yes", "No", or "NA" response in the column on the right. Best practices for a reviewer are provided after each of the questions. If the answer to any of the 6 questions is "Yes" then indicate "Yes" in Step 1, Item A, above. If the answers to all of the 6 questions is "No" then indicate "No" in Step 1, Item A, above. NOTE - If the reviewer has personal knowledge of the applicant's veracity, this can be taken into account in responding to any questions. For example, if the applicant's management and/or RSO have been associated with a current or previous NRC or Agreement State license, then the applicant may be considered as a known entity.</p>	YES, NO, or NA
1. Does the applicant have a current Agreement State or NRC license? The reviewer should 1) confirm that a valid license/registration/authorization exists for the applicant; and 2) compare the current license to the application to verify that the application represents a reasonable expansion of the licensee's operation (i.e., medical facility adding a gamma knife or an Agreement State licensee obtaining an NRC license in order to work in NRC jurisdiction without filing reciprocity).	Yes
2. Does the applicant have a current Agreement State or NRC license at another location and the new application represents the addition of a new facility within the scope of the licensee's core business? The reviewer should contact the appropriate licensing authority to confirm that a valid license/registration/authorization exists for the applicant and the corporate office of the licensee to verify that it has knowledge of and approves of the new application.	
3. Does the applicant have a current State or Federal government license, registration, authorization, etc., for other operations within the scope of its proposed license activities? (e.g., a company authorized by a State for mining that is now requesting authorization to use fixed gauges). The reviewer should contact the appropriate government office to confirm that the license, registration, authorization, etc., is valid; and the applicant's corporate office to confirm that it has knowledge of and approves of the new application to possess radioactive materials.	
4. Is the applicant a local, State or Federal government agency? The reviewer should contact the local, State or Federal government office to confirm that the applicant is a government entity.	
5. Does the application only involve the relocation of an existing licensee, or its mailing address, to another State? This includes new licenses created from existing licenses listing locations in multiple States, in preparation for transfer of licenses to States that will shortly sign an Agreement with the NRC.	
6. Is the application only the result of a licensee failing to submit a renewal application in a timely manner?	

STEP 1, ITEM B - INITIAL SCREENING CONTINUED

<p>B. The applicant is requesting certain radionuclides and quantities that are less than the Risk Significant Quantity (TBq) values in Worksheet B, below, as "highlighted" by the reviewer, or is currently subject to a security order or additional requirements for increased controls. If "Yes", there is no need to proceed further.</p>	<p>N/A</p>
---	------------

Worksheet B - Risk Significant Quantities

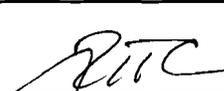
(Category 2 Quantities, IAEA Safety Guide No. RS-G-1.9, Categorization of Radioactive Sources, August 2005)

Radionuclide	Risk Significant Quantity (TBq ¹)	Risk Significant Quantity (Ci ¹)	Radionuclide	Risk Significant Quantity (TBq ¹)	Risk Significant Quantity (Ci ¹)
Am-241	0.6	16	Pm-147	400	11,000
Am-241/Be	0.6	16	Pu-238	0.6	16
Cf-252	0.2	5.4	Pu-239/Be	0.6	16
Cm-244	0.5	14	Ra-226 ²	0.4	11
Co-60	0.3	8.1	Se-75	2	54
Cs-137	1	27	Sr-90 (Y-90)	10	270
Gd-153	10	270	Tm-170	200	5,400
Hf-192	0.8	22	Yb-169	3	81

¹ The primary values are TBq. The curie (Ci) values are for informational purposes only.
² The Atomic Energy Act, as amended by the Energy Policy Act of 2005, authorizes NRC to regulate Ra-226 and NRC is in the process of amending its regulations for discrete sources of Ra-226.

<p>Calculations of the Total Activity or the Unity Rule were completed. NOTE—If an amendment of an existing license is being requested, the calculations will include the previously authorized quantities for the radionuclide(s).</p>	<p>Yes, No, or Not Applicable (NA)</p>
<p>Total Activity—multiple activities are requested for a single radionuclide and the sum of the activities is less than the Risk Significant Quantity (TBq) for the radionuclide.</p>	
<p>Unity Rule—multiple radionuclides are requested and the sum of the ratios is less than 1.0, e.g., [(total activity for radionuclide A) ÷ (risk significant quantity for radionuclide A)] + [(total activity for radionuclide B) ÷ (risk significant quantity for radionuclide B)] < 1.0.</p>	

Signature and Date for Step 1:

 3/5/08
 License Reviewer and Date

MAR 10 2008

DATE

This is to acknowledge the receipt of your letter/application dated 2-29-08, and to inform you that the initial processing, which includes an administrative review, has been performed.

There were no administrative omissions. Your application will be 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:

The action you requested is normally processed within 90 days.

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** 471713.
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,



Licensing Assistant

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:
License Fee Management Branch, ARM
and
Regional Licensing Sections

: Program Code: 03123
: Status Code: 0
: Fee Category: 1D 2C 3P
: Exp. Date: 20140630
: Fee Comments:
: Decom Fin Assur Reqd: N
:.....

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: LABOR, DEPARTMENT OF
Received Date: 20080228
Docket No: 3012126
Control No.: 471713
License No.: 43-17059-01
Action Type: Amendment

2. FEE ATTACHED

Amount:
Check No.: /

3. COMMENTS

Signed Colleen Munnahan
Date 3-04-08

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 _____