



*Energy
Environment
Community*

704 S. Illinois Ave
Suite C-202
Oak Ridge, TN 37830

www.ecc.net

Br. 2

September 12, 2019

REC RG 1 09 20 19 AM 09:59

Licensing Assistance Team
Division of Nuclear Materials Safety
Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, P A 19406-2713

03038789

Subject: Amendment Request Materials License No. 41-35191-01

Licensing Assistance Team Representative:

Purpose of this request change of designated Radiation Safety Officer for Materials License No. 41-35191-01, Amendment 4. Line 12 currently lists Theodore L. Johnson as the Radiation Safety Officer. Amendment requests replacing Keith D. Anderson, CHP, Esq., CMLSO, as designated Radiation Safety Officer.

Mr. Anderson meets training and qualification requirements of 10 CFR 35.50, Training for Radiation Safety Officer and Associate Radiation Safety Officer. Mr. Anderson is specialty board certified in health physics and medical laser safety, holds a Master of Science degree in health physics, and has more than 20 years of experience in health physics program implementation.

Attachment A, Radiation Safety Officer, presents resume and certification for Mr. Anderson.

Request is includes the removal of Dave Garber as an authorized user listed in Line 11.

Please contact Mr. Anderson at kanderson@eccc.net or (303) 356-1267, concerning this amendment request.

Regards,

Digitally signed by marc M
DN: cn=marc M, o=ECC, ou,
email=mmizrahi@eccc.net, c=US
Date: 2019.09.19 10:31:32 -07'00'

Marc Mizrahi, CHMM
Program Manager

Attachment A, Radiation Safety Officer Qualification

615961

NMSS/RGN1 MATERIALS-002

Attachment A
Radiation Safety Officer Qualification

Keith D. Anderson



Related Experience

**Environmental Chemical Corporation
Radiation Safety Officer/ Radiation Protection Manager**

7/2019 – present

Radiation Safety Officer/ Radiation Protection Manager for multiple state radioactive materials licenses for x-ray generating devices, exempt and non-exempt radiation sources, by-product and fissile materials. Developed Radiation Protection Program and Procedures to meet requirements of Agreement State, Agency, and accreditation requirements. Responsible for development of administrative and engineering controls, personal dose assessment and tracking, assigning and tracking radiation dosimetry, and investigation of non-compliance conditions. Responsible for all radiation protection program personnel and corporate records in compliance with 10 CFR 20, 10 CFR 835, and State Regulations.

**Barnes Jewish Hospital
Radiation Safety Officer & Laser Safety Officer**

8/2016-7/2019

Establish and maintain integrated Radiation Safety Program (RSP) for Barnes Jewish Hospital (BJH) entities addressing patient, general public, and worker safety, and the general public accessing facilities. The RSP supports nuclear medicine and radiology events for more than 45,000 patients per year and 1,400 radiation workers. Program compliance to Missouri Department of Health and Senior Services, 19 CSR 10-10, NRC Broad Scope License Conditions, while exceeding requirements of the Department of Health and Human Services (DHHS) Centers for Medicare & Medicaid Services (CMS) for the use of radioactive materials and radiation producing equipment. Fully compliant to multiple accreditation surveys of the Joint Commission. Continuous improvement monitoring and tracking performance elements, including quarterly worker dose assessment, corrective action plans, equipment inventory and testing, and investigating incidents of unplanned patient and worker exposures. Prepare, review, and process radiation producing device registration, annual testing and reporting, and new equipment procurement. Provide investigators, architects, physicians, and administrative officers compliant shielding design of facilities using radioactive material and/or radiation-producing equipment. Establish and maintain compliant Medical Laser Safety Program for medical laser safety systems used in perioperative and cardiology settings. Monitoring and overseeing control of laser hazards and use environments for Class 3B and Class 4 health care laser systems. Conduct hazard evaluations to establish engineering, administrative, and procedural controls according to ANSI Z136.3 -2018, Safe use of Lasers in Health Care. Authority for effective laser hazard controls for 22 health care laser systems used in over 2,600 cases annually.

**Wastren Advantage, Inc./VNS Federal Services
Senior Project Manager/Consultant**

2/2014 – 8/2016

Senior Project Manager/Consultant responsible for baseline schedule and cost estimates, project planning and execution, monitoring of project performance, quality program implementation, and daily client interactions. Responsible for management of complex projects for environmental and decommissioning project for US and international clients. Responsible for all facets of subcontractor procurement, cost analysis, and performance supervision for assigned projects. Providing technical and regulatory assessment of program compliance for DOE, DoD, and other commercial CONUS and international clients. Program development and execution for DoD, with particular emphasis on FUSRAP program execution. Senior Technical Advisor for compliance audit and regulatory analysis for U.S. DOE Office of Legacy Management. Specific task involved gap analysis for implementing DOE O

458.1 for more than 89 sites through the US. Drafted and submitted detailed report on proposed implementation, including resource loaded baseline schedule. Assessed disposal options for Mexico radium contaminated wastes and decommissioning planning integrated risk assessments, developing responses to request for additional information (RAI) for facility modification, and developing procedures. Completed and received radioactive material licenses for Ohio and Missouri. Drafted and obtained approval of corporate radiation safety program in support of multiple licensing efforts with Agreement States and the NRC.

Program Manager for successful capture planning of first EPA contract for WAI. The \$16M Base and Option Year contract is for remediation in Madison County for Operable Unit (OU) 3, Conrad Repository, and OU 4, Residential Soils. Completed on schedule delivery of initial work plans, work processes, and procedures, followed by successful readiness review by WAI Senior Management and the EPA. Currently managing and providing consultancy for the construction of the repository and remediation at more than 200 residential properties. Provide bi-monthly reporting and schedule update to the EPA for completed tasks. Remediation quantities, and property completion reports. Received satisfactory ratings in all areas of quality, safety, and schedule performance from the EPA.

ECC

1997 - 2014

Health Physicist/Program Manager/Director

Managed \$135 million in construction, remediation, and decommissioning projects at multiple sites for federal and commercial clients. Program level business development of federal, state, and commercial clients in nuclear decommissioning and remediation. Successfully led and managed diverse technical and operational teams from a few Engineers to large organization of more than 100 personnel in support of more than 28 projects. Projects completed over tenure valued at more than \$350 million, release of hundreds of acres of property, and excavation, removal, and disposal of more than 230,000 cubic yards of contaminated wastes. Managed all phases of remediation projects; planning and execution phase, fiscal performance and reporting, and interaction with Regulators, Clients, and negotiation with other Responsible Parties for cost allocation. Drafting and reviewing sites assessment reports, remediation planning documents, and closure reports according to local, state, and federal regulations at FUSRAP, CERCLA, and RCRA sites, and private action cleanups. Completed multiple license termination for nuclear facilities and site closures under the RCRA/CERCLA process. Corporate Radiation Safety Officer for operational health physics program and policies. Implementing all radiation protection programs for projects and corporate functional tasks. Expertise in environmental and radiation risk assessment/evaluation using RESRAD/Monte Carlo/Micro Shield/CAP88/SW-846, epidemiology data, technical expert in treatability studies and engineering designs for waste, water, and emission treatment systems for HTRW sites in compliance with federal and state safe drinking water standards, facility-specific NPDES permits, emission limits, and disposal facility waste acceptance criteria.

Led business development efforts adhering to disciplined program development tools. Assessed opportunities against scoring criteria of client knowledge, preference of client, technical and operational expertise, basis of contract award, and competition. Developed standing Teaming Agreements under which multiple opportunities were bid and won under the DOD and the DOE.

Highlight Project - Program Manager, Westinghouse Electric Company, Hematite FFCF Remediation, Festus, Missouri, \$21.4 million. Managed the \$21.4 million proposal and contract transition for the remediation and decommissioning project for Westinghouse Electric Company under CERCLA and NRC regulatory agreements. Managed work planning documentation in compliance to 10 CFR 70, NUREG-1757 and NUREG-1513 fir integrated safety analysis (ISA) as reflected in Facility Safety Analysis Reviews (FSAR) and nuclear criticality safety assessments (NCSA), in process sampling and screening of excavations; supervised engineering planning for shoring, sloping, and OSHA compliant excavations to a depth of more than 20-feet for precision remediation of chemical and radioactive wastes; managed waste segregation, staging, loading, and shipment of more than 700,000 cubic feet excavated soils. Prepared and reviewed reports on site data gap analysis, waste characterization, and work control documents. Managed the procurement and supervision of multiple subcontractors, equipment suppliers, and materials vendors. Performed all project reporting and schedule status, cost performance tracking and forecasting, and managed project funding reserve through documented change control process. Operations Manager responsible for leading and

integrating a staff of more than 135 engineers, scientists, technician, and craft. As of 12-19-13, project has logged 84,443 labor hours with no lost time accident or incident.

Highlighted Project - Technical Director/Legal Counsel, DOE, Battelle Columbus Closure Project, Columbus, Ohio, \$125 million. Technical lead on the proposal response for the DOE Battelle Columbus Closure Project. Provided independent oversight on all project facets for schedule, contract compliance, regulatory agreements, license termination compliance, environmental due diligence, and work execution, in full compliance to 10 CFR 70, NUREG-1513, and NUREG-1757. Directed the implementation of the internal and external dosimetry programs; determined the need for and evaluated bioassays; and maintained records associated with personnel dosimetry. Completed filing of all environmental compliance permits, licenses, and registration, and conducted regulatory analysis against the changing nuclear and radiological status of the facility. Advised Project and Senior Management on contractual, licensing, and liability activities on specific matters related to jurisdictional licensing and permitting as related to the facility operations. Other matters involve Price Anderson Act Amendment (PAAA) compliance according to 10 CFR 820. Reviewed and approved volumetric release criteria, and assessed project activities and work conditions for compliance with external requirements on the project; e.g., regulations, licenses, contractual requirements, industry standards, and waste disposal facility acceptance criteria.

Project Manager - Various Environmental Chemical Corporation Clean-up Projects: Led and managed the project completion of multiple environmental remediation and decommissioning of contaminated sites through the United States. Supervised and directed teams of engineering and safety professional to ensure environmental, safety, health, and radiological technical compliance and support for program and project goals. Provides radiological assessment and construction quality assurance and health and safety support to project managers to ensure projects are performed correctly and completed on time. Negotiated with regulatory agencies for selection of preferred remedies under the CERCLA/RCRA process and NRC license termination regulations. Managed all aspects of procurement, cost and schedule performance, baseline cost estimates, innovative technology evaluation and selection, and negotiations assistance for cost allocation to responsible parties. Ensured that all personnel assigned to project sites have the requisite radiological training and certifications required. Ensure compliance with all radiological regulatory and permitting issues.

Education

University of Denver, College of Law, Denver Colorado, Juris Doctorate

National Technical University at Walden University, Fort Collins, Colorado M.S. in Radiation Physics

Oral Roberts University, Tulsa, Oklahoma, B.S. in Psychology/Chemistry, [REDACTED]

Licenses, Certifications, and Registrations

State of Missouri, Licensed Attorney, December 2015, Current for 2019
Attorney Bar Number: 68569

State of Colorado, Licensed Attorney, Inactive
Attorney Registration Number 033034,

American Board of Health Physics, Board Certified Health Physicist, No. 3918, 1998
Recertified 2002 to 2006; 2006 to 2010; 2010 to 2014; 2015 to 2018, 2019 to 2023

Board of Laser Safety, Certified Medical Laser Safety Officer, Certification Number M11107,
2018 to 2021

Professional Organizations

Missouri Bar Association

Colorado Bar Association

Health Physics Society, Plenary Member

American Board of Health Physics, Plenary Member
Laser Institute of America

Documentation for Anderson, Keith Douglas

Juris Doctorate, University of Denver College of Law, Denver, Colorado, [REDACTED]



Documentation for Anderson, Keith Douglas

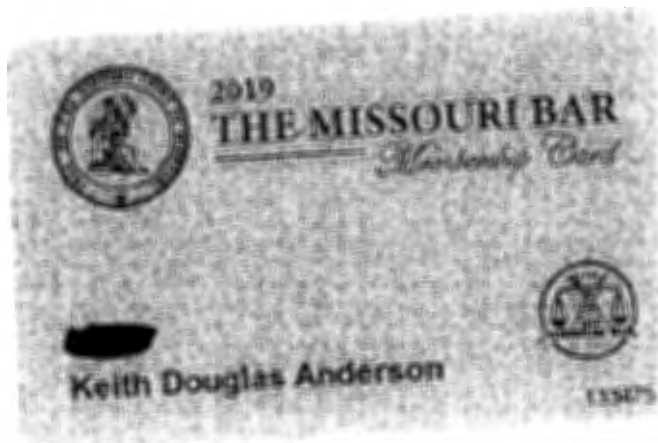
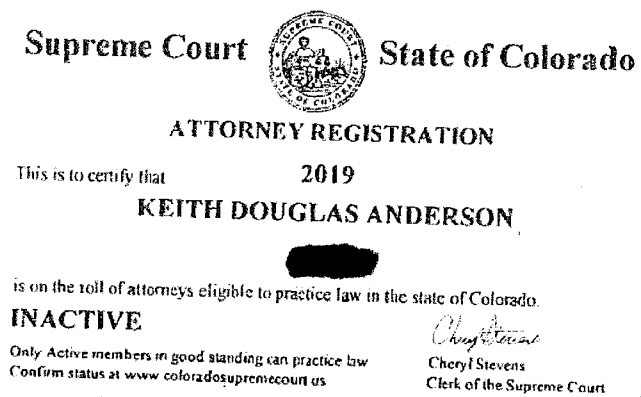
[REDACTED]
Masters of Science, Health Physics, National Technical University at Walden University, Fort Collins,
Colorado [REDACTED]



Documentation for Anderson, Keith Douglas

[REDACTED]
State of Colorado, Licensed Attorney, October 2001, Active through 2016. Current Status Inactive
Attorney Registration Number [REDACTED]

State of Missouri, Licensed Attorney, December 2015, Current for 2019
Attorney Bar Number [REDACTED]



Documentation for Anderson, Keith Douglas

American Board of Health Physics, Board Certified Health Physicist, No. 3918, 1998
Recertified 2002 to 2006; 2006 to 2010; 2010 to 2014; 2015 to 2019, 2019 to 2023




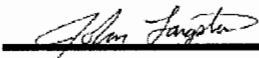

Documentation for Anderson, Keith Douglas

Board of Laser Safety, Certified Medical Laser Safety Officer, Certification No. M11107, 2018-2021



Documentation for Anderson, Keith Douglas

Qualified Expert in Radiation Safety, QE228, Missouri Department of Health and Senior Services, Bureau of Ambulatory Care, 2016-2018, 2018-2020

The Individual Below Is Hereby Recognized by the Missouri Department of Health and Senior Services, Bureau of Ambulatory Care as a	
Qualified Expert in Radiation Safety	
Keith Douglas Anderson JD MS CHP Esq	
	Recognition of Qualified Expert Status Valid <u>01/20/2018</u> Until: <u>01/20/2020</u> Qualified Expert ID: QE228
	 Administrator, Bureau of Ambulatory Care
	
⌘ Area(s) of Expertise ⌘	
<input checked="" type="checkbox"/> Health Physics Consultation	<input type="checkbox"/> Mammography *(FDA MQSA Standards)
<input checked="" type="checkbox"/> Radiation Shielding Design	<input type="checkbox"/> CT
<input type="checkbox"/> Diagnostic Radiographic (Medical/Chiropractic/Podiatric)	<input type="checkbox"/> Bone Density/DEXA
<input type="checkbox"/> Fluoroscopy/Interventional Radiology	<input type="checkbox"/> Dental (Non-CBCT)
<input checked="" type="checkbox"/> Non-Medical/Industrial/Academic/Research	<input type="checkbox"/> Veterinary Radiology
<input type="checkbox"/> Therapy/Linear Accelerator	<input checked="" type="checkbox"/> Other : Rad protection & eng for remediation & decommissioning, licen
<small>Per requirements in 19 CSR 20-10.010, this person is found to have the necessary training and experience to be able to perform dependable radiation surveys. Despite recognition of this person's status as a Qualified Expert, the Department makes no warranty either expressed or implied as to the quality of specific services provided to an individual facility. Complaints regarding this person's ability to continue to conduct dependable radiation surveys may be directed to the Radiation Control Program at 573-751-6083 or MRCP@health.mo.gov</small>	



ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

Name and Address of Applicant and/or Licensee

Mr. Mar Mizrahi
Program Manager
Environmental Chemical Corporation
c/o ReNuke Services, Inc.
704 S. Illinois Avenue
Suite C-202
Oak Ridge, Tennessee 37830

Date

September 30, 2019

License Number(s)

41-35191-01

Mail Control Number(s)

615961

Licensing and/or Technical Reviewer or Branch

Commercial, Industrial, R&D, and Academic Branch

This is to acknowledge receipt of your: ☒ Letter and/or ☐ Application Dated: 9/12/2019

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, Request for Taxpayer Identification Number, 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

☐ The following administrative omissions have been identified:

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:

Select a location (Use keyboard arrows to select). . .