

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
QUESTIONNAIRE

Utah

Reporting Period: July 15, 2011 to July 31, 2015

Note: If there has been no change in the response to a specific question since the last IMPEP questionnaire, the State or Region may copy the previous answer, if appropriate.

A. GENERAL

1. Please prepare a summary of the status of the State's or Region's actions taken in response to each of the open recommendations from previous IMPEP reviews.

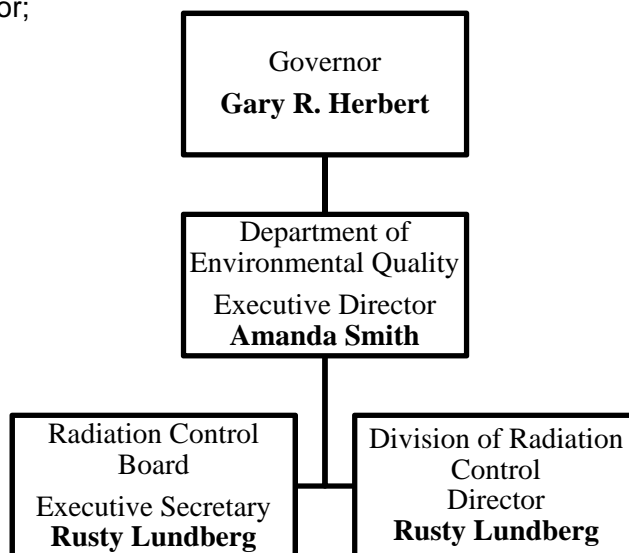
All recommendations from the 2011 IMPEP review were acted on and were addressed in the 2013 periodic review and report. No open recommendations currently exist.

B. COMMON PERFORMANCE INDICATORS

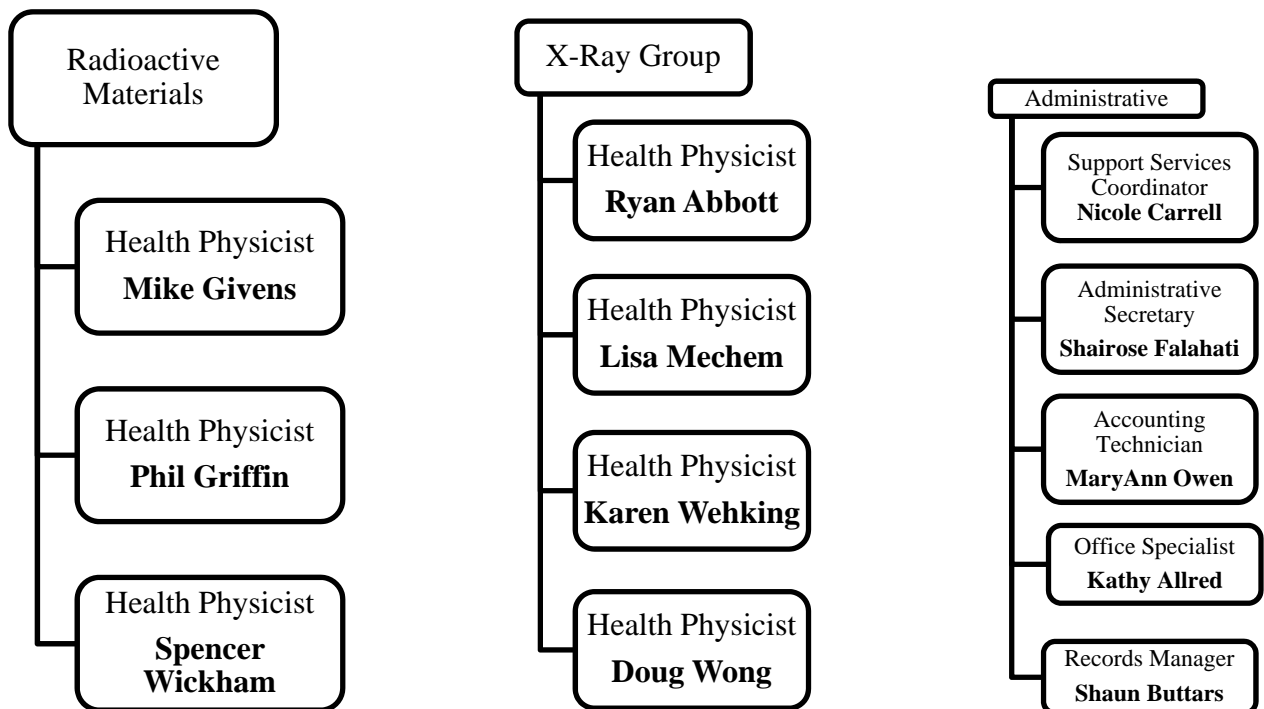
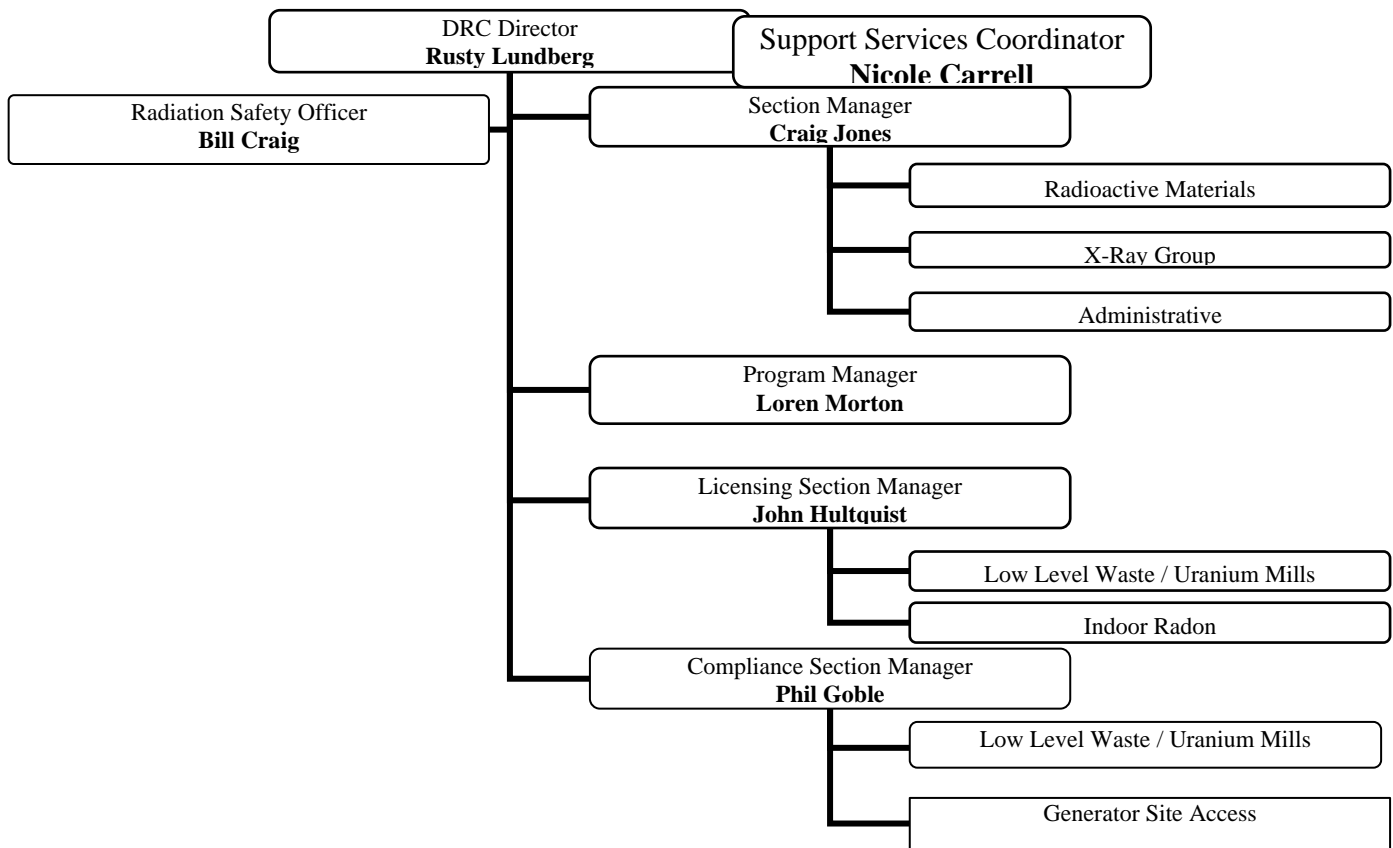
I. Technical Staffing and Training

2. Please provide the following organization charts, including names and positions:

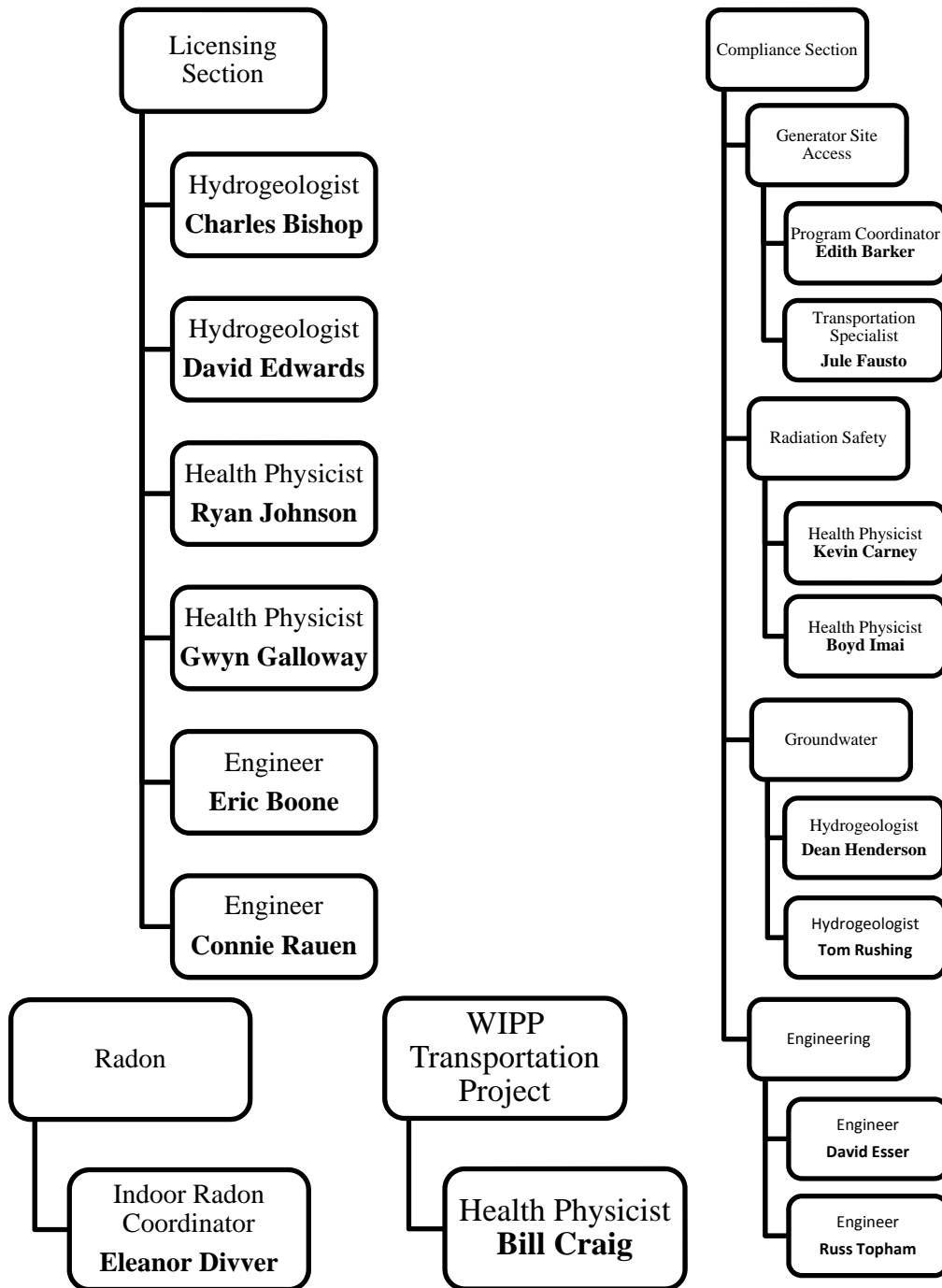
(a) A chart showing positions from the Governor down to the Radiation Control Program Director;



¹ Estimated burden per response to comply with this voluntary collection request: 53 hours. Forward comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0183), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.



- (c) Equivalent charts for sealed source and device evaluation, low-level radioactive waste and uranium recovery programs, if applicable.



During the 2015 General Session of the Utah Legislature, S.B. 244, *Department of Environmental Quality Modifications*, was enacted. This bill combines the Division of Radiation Control and the Division of Solid and Hazardous Waste into a new division named as the Division of Waste Management and Radiation Control. The effective date of the agency consolidation is July 1, 2015. The organization chart for the new agency accompanies this questionnaire.

3. Please provide a staffing plan, or complete a listing using the suggested format below, of the professional (technical) full-time equivalents (FTE) applied to the radioactive materials program by individual. Include the name, position, and, for Agreement States, the fraction of time spent in the following areas: administration, materials licensing & compliance, emergency response, low-level radioactive waste, uranium recovery, other. If these regulatory responsibilities are divided between offices, the table should be consolidated to include all personnel contributing to the radioactive materials program.

Name	Position	Area of Effort	FTE%
Abbott, Ryan	Environmental Scientist II	X-ray	1.00
Barker, Edith	Environmental Program Coordinator	Generator site access X-ray Registration	1.00
Bishop, Charlie	Environmental Scientist III	Low-level waste Uranium Mills	0.90 0.10
Carney, Kevin	Environmental Scientist III	Low-level waste Uranium Mills	0.40 <u>0.60</u> 1.00
Boone, Eric	Environmental Engineer III	Low-level waste Uranium Mills	0.40 <u>0.60</u> 1.00
Craig, Bill	Environmental Scientist III	Low-level waste Emergency Response Instrument calibration and repair / Radiation Safety Officer	0.70 0.10 <u>0.20</u> 1.00
Divver, Eleanor	Information Specialist (Half Time)	Indoor Radon	0.50
Edwards, David	Environmental Scientist III	Low-level waste Uranium Mills	0.80 0.20
Esser, David	Environmental Engineer III	Low-level waste	1.00
Fausto, Jule	Environmental Scientist III	Generator site access / Transportation	1.00
Galloway, Gwyn	Environmental Scientist III	Radioactive materials Low-level waste Uranium Mills	.25 0.25 <u>0.50</u> 1.00
Givens, Mike	Environmental Scientist II	Radioactive materials inspection/licensing	1.00
Goble, Phillip	Environmental Manager I	Low-level Waste Uranium Mills U mills - Title I (groundwater) Generator Site Access	0.30 0.50 0.10 <u>0.10</u> 1.00
Griffin, Philip	Environmental Scientist III	Radioactive materials inspection/licensing	1.00

Henderson, Dean	Environmental Scientist III (All Groundwater)	Low-level waste Uranium Mills	0.40 <u>0.60</u> 1.00
Hultquist, John	Environmental Manager I	Low-level waste Uranium mills Indoor Radon	0.65 0.25 <u>0.10</u> 1.00
Imai, Boyd	Environmental Scientist III	Low-level waste Uranium Mills Generator Site Access	0.50 .40 <u>0.10</u> 1.00
Johnson, Ryan	Environmental Scientist III	Low-level waste Uranium Mills	0.60 0.40 1.00
Jones, Craig	Environmental Manager II	Radioactive materials licensing/inspection X-ray	0.50 <u>0.50</u> 1.00
Lundberg, Rusty	Division Director	Low-level waste Radioactive materials X-Ray Uranium Mills Radon	0.35 0.30 0.10 0.20 <u>0.05</u> 1.00
Mechem, Lisa	Environmental Scientist III	X-Ray	1.00
Morton, Loren	Environmental Manager I	Low-level waste NRC Rulemaking/Guidance	0.75 <u>0.25</u> 1.00
Rauen, Connie	Environmental Engineer III	Low-level waste Uranium Mills	0.80 <u>0.20</u> 1.00
Rushing, Tom	Environmental Scientist III (All Groundwater)	Low-level waste Uranium Mills U mills - Title I	0.30 0.60 <u>0.10</u> 1.00
Russell Topham	Environmental Engineer III	Low-level waste Uranium Mills	0.25 0.75
Wehking, Karen	Environmental Scientist III	X-Ray	1.00
Wickham, Spencer	Environmental Scientist II	Radioactive materials inspection/licensing	1.00
Wong, Doug	Environmental Scientist III	X-Ray	1.00

If consultants were used to carry out the program's radioactive materials responsibilities, include their efforts. The table heading should be:

Name Position Area of Effort FTE%

Consultants provide technical assistance to the Division of Radiation Control staff for various license renewal or amendment application reviews involving EnergySolutions, LLC and Energy Fuels Resources (formerly Denison Mines). The type of technical assistance performed by the Division's consultants was not specifically accounted for in a manner that allows providing the information in the specified table format. However, the following table does give the amount of time for the designated fiscal year that a consultant provided technical support to the Division. Technical services provided by SC&A are in support of reviewing the performance assessment submitted by EnergySolutions for the disposal of large quantities of depleted uranium at the Clive facility.

Fiscal Year	Consultant Hours
2012 (07/01/2011 - 06/30/2012)	2,489 (URS)
2013 (07/01/2012 - 06/30/2013)	892.5 (URS)
2014 (07/01/2013 - 06/30/2014)	4,182 (3,833 SC&A) (349 URS)
2015 (07/01/2014 - 06/30/2015)	4,488 (SC&A)

4. Please provide a listing of all new professional personnel hired into your radioactive materials program since the last review, indicate the date of hire; the degree(s) they received, if applicable; additional training; and years of experience in health physics or other disciplines, as appropriate.

Ryan Abbott (X-Ray)

EDUCATION:

2008 Radiologic Technologist. Weber State University, Ogden, UT

RELATED WORK EXPERIENCE:

2013 to present State of Utah Xray Compliance Inspector
2008 to 2013 Clinical RT

SHORT COURSES:

April 2013 Medical X-ray Survey Techniques Course. Ft. Sam Houston, TX

PROFESSIONAL AFFILIATIONS:

AART

PROFESSIONAL REGISTRATION:

RT license State of Utah

Eric Boone **(Low-Level Waste and Uranium Mills)**

EDUCATION:

Bachelor of Science, Geological Engineering, University of Nevada, Reno, Nevada / USA, 1986
ASQ Certified Manager of Quality / Organizational Excellence (2014)
OSHA 10-Hour Construction (2011)
MSHA 24 Hour / 2013 Annual Refresher
HAZMAT-Transportation of Hazardous Materials (2011)

RELATED WORK EXPERIENCE:

Mr. Boone has more than 26 years of experience in geotechnical engineering, construction quality management engineering, and materials inspection and testing for projects including embankment construction, interstate highway projects, public works, commercial and residential developments in Utah, Wyoming, Idaho, Mexico, North Dakota, and California. During these years as a geotechnical engineer his responsibilities have included project level field exploration, laboratory testing, and geotechnical analysis; operational management of office, field, and laboratory activities including supervising and training staff performing field exploration, laboratory testing, geotechnical analyses, and the testing and inspection of construction materials.

SHORT COURSES:

Introductory Health Physics (H-117), 2/9/15 to 2/13/15, Chattanooga, TN
Evaluation and Mitigation of Liquefaction Hazard for Engineering Practice, 4/9/2014, EERI 2014 -- Salt Lake City
Data Acquisition for Geotechnical, Structural, and Civil Instrumentation, 3/28/2014, Geo-Institute -- Seattle Chapter
Dewatering and Groundwater Control for Construction, 4/19/2013, Geo-Institute -- Seattle Chapter

PROFESSIONAL AFFILIATIONS:

American Society of Civil Engineers
Association of Environmental & Engineering Geologists
American Society for Quality

PROFESSIONAL REGISTRATION:

Professional Engineer-Civil, State of Colorado No. PE.0047362, 2013
Professional Engineer-Civil, State of Utah No. 358996-2202, 1998
Professional Engineer-Civil, State of California No. C55348, 1996

Eleanor Diver **(Indoor Radon)**

EDUCATION:

Undergraduate in Health Promotion and Education
Master's in Public Health with an emphasis in Environmental Health.

RELATED WORK EXPERIENCE:

Indoor Air Quality and Radon when employed with Salt Lake County Local Health Department

SHORT COURSES:

National Radon Symposium, and EPA Region 8 Conferences

PROFESSIONAL AFFILIATIONS:

Rocky Mountain AARST, AARST, Utah Radon Coalition, Utah Radon Policy Coalition, CRCPD
(Conference of Radiation Control Program Directors)

PROFESSIONAL REGISTRATION:

NRPP training - Radon Measurement and Mitigation; Certified Environmental Health Scientist

David Edwards (Low-Level Waste and Uranium Mills)

EDUCATIONAL BACKGROUND

Ph.D., Civil (Environmental) Engineering, Carnegie Mellon University, 1993.

M.S., Geology (Hydrogeology), Texas A&M University, 1988.

B.S., Geology, Brigham Young University, 1980.

RELATED WORK EXPERIENCE

Environmental Scientist III, Utah Dept. of Envr. Quality, Division of Radiation Control, 2013-present.

Environmental Scientist II, Utah Dept. of Envr. Quality, Division of Radiation Control, 2011-2013.

Assistant Professor, Environmental Technology Management, Arizona State Univ., 2006-2011.

Consultant to Kennecott Utah Copper Corporation/Franklin, Copperton, UT, 2005-2006.

Systems Analyst, Haley & Aldrich of New York, Rochester, NY, 2000-2004.

Senior Hydrogeologist, Haley & Aldrich of New York, Rochester, NY, 1994-1999.

Assistant Professor, Dept. of Geosciences, Wright State Univ., Dayton, OH, 1993-1994.

Research Assistant, Dept. of Civil Engineering, Carnegie Mellon Univ., Pittsburgh, PA, 1988-1993.

Hydrogeologist, Earth Dimensions, Ltd., East Aurora, NY, 1988.

Geologist and Geophysicist, Pesetas Energy Company, Bryan, TX, 1985-1986.

Geologist and Geophysicist, part-time work with various companies, Austin, TX, 1983-1985.

Geologist, Gulf Oil Company, Midland and Odessa, TX, 1981-1983.

SHORT COURSES

U of Utah Continuing Education Technical Writing 101/201, 2014.

NRC H-410, RESRAD, Rockville, MD, 2013.

NRC G-109, Licensing Procedures, Chattanooga, TN, 2013.

NRC F-104, Health Physics for Uranium Recovery, Moab, UT, 2012.

NRC H-122, Fundamental Health Physics I and II (Basic Health Physics), Oak Ridge, TN, 2012.

Plus 55 short courses, seminars, and exercises related to emergency preparedness, response and recovery (Utah and Arizona, 2005-2011).

PROFESSIONAL AFFILIATIONS

National Ground Water Association

American Society of Civil Engineers (previously)

American Chemical Society (previously)

Ronald (Mike) Givens (Radioactive Materials)

EDUCATION:

Associate Degree - Engineering - Miami Dade Community College, Miami Florida

RELATED WORK EXPERIENCE:

Qualified NavShip 389-0288 - Radiation Control Monitor, Ingall's Shipbuilding, Pascagoula Mississippi Provided coverage for overhaul and refueling nuclear powered submarines.

Startup, overhaul and refueling of commercial power plants. ANSI 3.1 and NSI 18.1 qualified in Health Physics and Chemistry. Positions included: Health Physics Technician, ALARA Engineer, Shift Technical Advisor, and Health Physics Shift Supervisor

Performed Health Physics/Radiation Control duties for sampling, decontamination, demolition and disposal of facilities associated with clean-up and release of DOE sites used for nuclear weapon production. Performed HP coverage at Rocky Flats, Idaho National Laboratory, the Mound, Hanford Reservation. Completed and maintained DOE certification. Provided support in highly contaminated, high dose rate, and alpha airborne areas.

SHORT COURSES:

Completed the following NRC/Agreement State training courses: Inspection Procedures, Licensing Procedures, Environmental Monitoring, Fundamental Health Physics I, II and III, Advanced Health Physics, Nuclear Medicine, Industrial Radiography, Transportation of Radioactive Material, Internal Dosimetry Brachytherapy and Gamma Knife, and Well Logging.

Maintained qualifications as HazWoper operator and HazMat/DOT training

PROFESSIONAL AFFILIATIONS:

American Society for Nondestructive Testing (ASNT). Served as proctor for testing applicants during radiography certification examinations.

PROFESSIONAL REGISTRATION:

National Registry of Radiation Protection Technologists (NRRPT). After meeting the requirements established for on the job experience, I completed the certification examination in 1979.

Lisa Mechem (X-Ray)

EDUCATION:

Doctor of Veterinary Medicine, May 1990, Oregon State University, Corvallis, OR
Bachelor of Science. Zoology, minor Chemistry June 1985. Weber State College. Ogden, UT

RELATED WORK EXPERIENCE:

October 2011 to present: X-ray program compliance inspector State of Utah
June 1990 to October 2011: Clinical Veterinarian

SHORT COURSES:

April 2012 Medical X-ray Survey Techniques Course, Ft. Sam Houston, TX
April 2013 FDA MQSA training, Silver Spring, MD

PROFESSIONAL AFFILIATIONS:

AVMA, UVMA (not current)

PROFESSIONAL REGISTRATION:

FDA-MQSA Certified Inspector
DVM, State of Utah
DEA

Connie Rauhen **(Low-Level Waste and Uranium Mills)**

EDUCATION:

B.S. Chemistry and Biology,
B.S. Civil Engineering, M.S. Civil Engineering

RELATED WORK EXPERIENCE:

6 year working for EG&G at Idaho National Engineering Laboratory working on radioactive waste projects; 19 years working for DEQ, DSHW working on hazardous waste projects

SHORT COURSES:

NRC - Licensing Practices and Procedures, Evaluation and Mitigation of Liquifaction Hazard for Engineering Practice, Introductory Health Physics, Earthquake Induced Ground Motions, Slope Stability and Landslides, Seismic Hazard Analysis - Keeping up with the Science, Constructing with Fabricated Geomembranes - Advances and Emerging Trends and Basin and Range Province Seismic Hazards Summit

PROFESSIONAL AFFILIATIONS:

American Society of Civil Engineers

PROFESSIONAL REGISTRATION:

Professional Engineer, State of Utah

Russell Topham **(Low-Level Waste and Uranium Mills)**

EDUCATION:

B.S. Degree in Civil Engineering, 1986, University of Utah.

Pursued advanced studies in pipe networking, open channel hydraulics and mechanics of mud flows. Major areas of study included advanced math, hydraulics/hydrology, computer modeling, and construction planning and project control.

MBA, 2009, University of Phoenix.

Coursework pertinent to current responsibilities included accounting, statistical methods, project management, negotiation, and team management theory.

Certified Public Manager, 2014, Utah Department of Human resource Management.

RELATED WORK EXPERIENCE:

Inspection of land development, utility installation, and earth fill dam construction from 1979 to 1986 and 1988 to 1992. Includes inspecting work in process as well as finished product for adherence to contract requirements and regulatory standards. Requires familiarity with applicable construction techniques, compliance testing procedures, and statistical methods.

Geotechnical logging and laboratory analysis from 1979 to 1986, 1988 to 1992 and 2006 to 2008. Includes field and laboratory soil classification, permeability and percolation testing, and use of statistical methods.

Design and construction project management from 1988 to 1992 and 2001 to 2005. Includes plan and contract document development, cost estimating, contractor selection, establishing construction schedules and allocating resources to complete the work, coordination of inspection activities, and project change control (budget and scope management).

EPA-based inspection of drinking water facilities from 1992 to 2000 and 2011. Requires knowledge of pertinent regulations and industry standards. Requires ability to differentiate between regulatory requirements and other engineering requirements of project design and execution, limiting the review to the mission of the organization (project scope control). Includes evaluation of potential for surface water contaminants to penetrate to the ground water table. Includes understanding of contaminant transport mechanisms in ground water.

RCRA and CERCLA cleanup project management from 2001 to 2005. Requires knowledge of pertinent regulatory and industry standards, as well as effective remedial techniques. Requires knowledge of investigative and confirmatory environmental sampling strategies for chemical and heavy metal contaminants. Includes understanding of contaminant transport mechanisms in ground water and use of statistical methods.

Landslide evaluation and mitigation from 2005 to 2008. Requires knowledge of geotechnical engineering principles, including foundation stability, seismicity, ground water control strategies to prevent flow into sensitive strata, and familiarity with earthworks construction techniques. Includes management of contractors and/or subcontractors, establishing project schedules, and project change management.

Regulating low level radioactive waste facility and uranium mill surety from 2011 to present. Includes reviewing licensee submittals for completeness and recommending adjusting or approving the surety amount. Requires skills in accounting and project management and change control. Requires knowledge of requirements for decommissioning to restricted release and unrestricted release standards. Requires knowledge of standard construction contracting and cost estimating practices, as well as industry-specific regulatory requirements and guidance.

Inspecting placement of 11e.(2) waste above tailings at mill tailings impoundment sites.

Inspecting storm water conveyance and detention features of mill and waste disposal sites.

Perform inspections of embankment integrity at mill and waste disposal sites. Includes dam safety inspections for tailings impoundment embankments. Includes evaluation of tailings impoundment embankments and waste disposal embankments for capability to resist erosion, and for integrity vis-à-vis slope failure.

Reviewing mill tailings impoundment slimes drain and leak detection feature performance.

SHORT COURSES:

Introductory Health Physics; (H-117), 2011; Landfill Cell Construction (Construction with Fabricated Geomembranes), 2012; Health Physics of Uranium Recovery (F-104), 2012; Facility Decommissioning Training Course (ANL), 2013; Root Cause Workshop (G-205), 2014; Characterization and Planning for Decommissioning (H-115), 2014; MARSSIM (H-121), 2014.

CERTIFICATES/PROFESSIONAL REGISTRATION:

Professional Engineer, licensed through State of Utah.

Decommissioning, issued jointly through ORAU and ANL

Spencer Wickham **(Radioactive Materials)**

EDUCATION:

University of Utah, Bachelor of Science

RELATED WORK EXPERIENCE:

Tooele Army Depot, Explosive Worker: Categorized, inspected and preserved ammunition, explosives, and other types of ordnance used by the military. Created DODICS and labeling to properly identify ammunition. Prepared demilitarization records for disposal of ordnance.

Energy Solutions, Decontamination Lead: Performed inspections, surveys, and decontamination activities of intermodals, c-vans, and rail cars to ensure they were properly decontaminated and met the legal release requirements. Created radioactive waste disposal records and entered information into a waste tracking database.

SHORT COURSES:

U.S. Nuclear Regulatory Commission (NRC) Training, Inspection Procedures, Licensing Procedures, Root Cause Workshop, Environmental Monitoring, Introductory Health Physics, Air Sampling, Fundamental Health Physics I and II, Fundamentals Health Physics III, Nuclear Medicine, Industrial Radiography, Transportation of RAM, Brachytherapy & Gamma Knife, Well Logging, Irradiator Technology, and NRC Materials Control & Security Systems & Principles

U.S. Department of Defense (DOD) Training, TEADS Program and Ammo 99

U.S. Department of Transportation (DOT) Training, 40 Hour Hazwoper Training Course

PROFESSIONAL AFFILIATIONS:

American Society for Nondestructive Testing (ASNT)

PROFESSIONAL REGISTRATION:

N/A

5. Please list all professional staff who have not yet met the qualification requirements for a radioactive materials license reviewer or inspector. For each, list the courses or equivalent training/experience they need and a tentative schedule for completion of these requirements.

All current license reviewer / materials inspection staff have met the necessary qualification requirements for their assigned duties.

6. Identify any changes to your qualification and training procedure that occurred during the review period.

No changes to the staff qualification and training procedure since the last review have been made. Depending on an employee's position by program activity, a specific course may be required, not required, or recommended.

7. Please identify the technical staff that left your radioactive materials program during the review period and indicate the date they left.

Richard Sanborn (X-ray)(June 8, 2012), Christine Keyser (Indoor Radon) (October 15, 2013), Dave Rupp (June 28, 2013), Craig Jones (December 19, 2014), John Hultquist (June 5, 2015), Loren Morton (June 26, 2015), Doug Wong (X-ray)(May, 2015), Bill Craig (July 1, 2015), Eleanor Divver (Indoor Radon) (July 1, 2015), Shairose Falahati (July 1, 2015).

8. List any vacant positions in your radioactive materials program, the length of time each position has been vacant, and a brief summary of efforts to fill the vacancy.

Program Manager, Radioactive Materials and X-Ray: Vacant since December 22, 2014. Agency management was aware of the state legislature's interest in consolidating the Division of Radiation Control with the Division of Solid and Hazardous Waste and determined that any vacancies in the radiation control program would need to be held until completion of any legislative action to create a consolidated agency.

9. For Agreement States, does your program have an oversight board or committee which provides direction to the program and is composed of licensees and/or members of the public? If so, please describe the procedures used to avoid any potential conflict of interest.

When the Department of Environmental Quality was created in 1991, the Radiation Control Board was also established. Board members are appointed by the governor and confirmed by the state senate. This board was originally granted rulemaking and certain administrative functions, including conducting various public hearings as necessary. The enacting legislation specified the makeup of the board to include designated representatives of various government, private organizations, and industry. State law governs the need for board members to comply with state conflict of interest policies and ethics standards. Therefore, board members who have, or may have, a conflict of interest in any issue before the board, should declare the conflict, verbally, prior to entering into a discussion of the issue. Board members who have a conflict of interest in a motion to be voted on by the board should abstain from voting on the motion. Upon appointment to the Radiation Control Board, each board member is required to complete a written Conflict of Interest statement. If the Board member has no known conflicts of interest, they so state. The member's individual statements are to be updated as necessary.

During the 2015 General Session of the Utah Legislature, S.B. 244, *Department of Environmental Quality Modifications*, was passed. This bill replaced the existing Radiation Control Board and Solid and Hazardous Waste Control Board with a new board, the Waste Management and Radiation Control Board. The new board continues to have administrative rulemaking authority and consists of twelve members appointed by the governor and confirmed by the state senate. Board members are subject to the same conflict of interest requirements and ethics standards required of the previous board members.

II. Status of Materials Inspection Program

10. Please identify individual licensees or categories of licensees the State is inspecting less frequently than called for in NRC's Inspection Manual Chapter (IMC) 2800 and explain the reason for the difference. The list only needs to include the following information: license category or licensee name and license number, your inspection interval, and rationale for the difference.

The Division of Radiation Control does not have any radioactive material license categories that have an inspection frequency less than the frequency identified in NRC's Inspection Manual Chapter (IMC) 2800. Many of the radioactive material license categories within the State of Utah are inspected more frequently than specified in IMC 2800.

11. Please provide the number of routine inspections of Priority 1, 2, and 3 licensees, as defined in IMC 2800 and the number of initial inspections that were completed during each year of the review period.

Inspections of NRC Priority 1-3		
Timeframe	Routine	Initial
06/8/2011 - 12-31/2011	17	4
01/01/2012 - 12/31/2012	33	4
01/01/2013 - 12/31/2013	33	4
01/01/2014 - 12/31/2014	28	1
01/01/2015 - 06/30/2015	9	3

12. Please submit a table, or a computer printout, that identifies inspections of Priority 1, 2, and 3 licensees and initial inspections that were conducted overdue.

At a minimum, the list should include the following information for each inspection that was conducted overdue during the review period:

- (1) Licensee Name
- (2) License Number
- (3) Priority (IMC 2800)
- (4) Last inspection date or license issuance date, if initial inspection
- (5) Date Due
- (6) Date Performed
- (7) Amount of Time Overdue
- (8) Date inspection findings issued

Licensee	License Number	NRC Priority	Last Inspection or Date License Issued	Date Due	Date Performed	Amount of Time Overdue	Date Inspection Findings Issued
Infinity Consultants	UT 2500556	1	07/11/2012	07/11/2013	08/08/2013	28 days	11/27/2013
IHC Health Services, Inc. DBA Riverton Hospital	UT 1800521	1	10/08/2008	10/08/2009	12/17/2009 (Facility did not open until 11/02/2009)	As of 7/7/2015 70 days from date due; Not late if calculated from opening day	01/19/2010

Licensee	License Number	NRC Priority	Last Inspection or Date License Issued	Date Due	Date Performed	Amount of Time Overdue	Date Inspection Findings Issued
PacifiCorp - Energy West Mining	UT 0800547	1	10/03/2013	10/03/2014	02/23/2015	As of 7/7/2015 143 days from date due; however, associated with previous license new license issued to remove Corp RSO and give responsibility to a local RSO.	03/25/2015

Category 1-3 Inspections completed past due

Licensee	License Number	NRC Priority	Last Inspection or Date License Issued	Date Due	Date Performed	Amount of Time Overdue	Date Inspection Findings Issued
Timpanogos Regional Medical Services, Inc.*	UT 2500409	2	04/12/2012	10/12/2014	12/11/2014	60days	01/06/2015
American Fork Hospital*	UT 2500236	2	06/06/2010	12/06/2012	12/11/2014	735 days	01/06/2015
Utah Valley Regional Medical Center**	UT 2500129	2	Issue with 35.1000 materials not being inspected at 2 year interval	Inspections conducted annually for HDR but do not do a full inspection (only what is "due" at the time)			

* Late due to failure to modify license category to reflect licensee's approval for materials regulated under 10 CFR 35.1000 (emerging technologies).

** It is difficult to determine the required information since this licensee is inspected on an annual basis; however, not all modalities are inspected at each inspection. Since regular nuclear medicine facilities using materials requiring written directives are inspected at three year intervals, the nuclear medicine portion of the facility is inspected once every three years. The State's priority for inspecting HDR is annually, so the HDR is inspected annually. Emerging Technologies are required to be inspected every other year. This licensee received approval for an emerging technology and it was not recognized, therefore the emerging technologies were not inspected at the required time intervals, but since an inspection was done it is hard to record which exact dates the emerging technology inspections were late on.

13. Please submit a table or computer printout that identifies any Priority 1, 2, and 3 licensees and initial inspections that are currently overdue, per IMC 2800. At a minimum, the list should include the same information for each overdue inspection provided for Question 12 plus your action plan for completing the inspection. Also include your plan for completing the overdue inspections.

Licensee	License Number	NRC Priority	Last Inspection or Date License Issued	Date Due	Amount of Time Overdue	Plan of Action for Completion
Quality Testing & Inspection	UT 2500269	1	3/25/2013	6/25/2014	377 days	Will be completed by the time the NRC conducts their IMPEP review the week of the July 27-31, 2015.
Mistras Group, Inc.	UT 0600485	1	Office Inspection conducted on August 11, 2014.	08/2015	329 days	Unable to connect with crew for field inspection. Compliance letter will be sent by the time the NRC conducts their IMPEP review the week of the July 27-31, 2015 for the office inspection.
Shaw Naptech, Inc.	UT 0600332	2	02/27/2013	05/27/2015	48 days	Will be completed by August 14, 2015.
Moab Testing Services	UT 1000454	5	04/16/2009	07/16/2015	Will be late as of 7/16/2015	This will be completed the week of July 13-17, 2015.
Geotek, Inc. (initial)	UT 2700560	1	08/06/2013	08/06/2014 (Attempted 11/4/2014 but not in office)	335 days from due date; 245 days from attempted date	Will be completed by the time the NRC conducts their IMPEP review the week of July 27-31, 2015.

John MacInnis (Initial)	UT 1100561	1	11/06/2013	11/06/2014 (Attempted 08/13/2014 - No Materials)	243 days from due date; 328 days from attempted date	Talked to Mr. MacInnis on 7/8/15. He still doesn't have any radioactive materials. He was told if he doesn't have radioactive materials by November 2015, his license will be terminated. He was told he can apply for an extension if he wishes.
Platinum Energy Solutions (Initial)	UT 2400570	1	04/14/2014	04/14/2015	84 days	We have received a License Termination Request. Will be completed by the time the NRC conducts their IMPEP review the week of the July 27-31, 2015.

14. Please provide the number of reciprocity licensees that were candidates for inspection per year as described in IMC 1220 and indicate the number of reciprocity inspections of candidate licensees that were completed each year during the review period.

Year	Candidate Licensees	Reciprocity Inspections Completed
2011	17	4
2012	17	3
2013	15	0
2014	18	4
2015	10	1

III. Technical Quality of Inspections

15. What, if any, changes were made to your written inspection procedures during the reporting period?

During the given IMPEP interval, the Division of Radiation Control's written inspection procedures were modified as follows:

- Incidents and allegation forms were modified .
- Procedures were modified to reflect that allegations were to be accepted in any format as opposed to only in writing. Additionally the procedures were clarified to reflect that there were no off the record comments.

16. Prepare a table showing the number and types of supervisory accompaniments made during the review period. Include:

Inspector	Supervisor	License Category	Date
Philip Griffin	Craig Jones	3-d.3	12/28/2011
Philip Griffin	Craig Jones	3-b.1	11/14/2012
Philip Griffin	Craig Jones	7-c	12/11/2013
Philip Griffin	Craig Jones	7-b.2B	12/10/2014
Spencer Wickham	Craig Jones	3-1.2A	4/5/2013
Spencer Wickham	Craig Jones	3-1.1	4/10/2013
Spencer Wickham	Craig Jones	7-b.2A	4/23/2013
Spencer Wickham	Craig Jones	7-b.2B	10/27/2014
Mike Givens	Craig Jones	3-1.1	3/28/2013
Mike Givens	Craig Jones	3-1.2A	4/2/2013
Mike Givens	Craig Jones	7-b.1A	4/23/2013
Mike Givens	Craig Jones	7-b.1A	12/11/2014

17. Describe or provide an update on your instrumentation, methods of calibration, and laboratory capabilities. Are all instruments properly calibrated at the present time? Were there sufficient calibrated instruments available throughout the review period?

Exposure rate instruments and dosimeters are calibrated on-site using a one-curie cesium-137 source. The calculated source intensity is adjusted for decay prior to each calibration session. Each instrument is placed on a small table at a specified distance from the source to evaluate the desired reading on multiple scales or decades. An electronic pulser is used to check electronic counting circuits. Instruments have also been sent to the manufacturer for calibration.

Contamination instruments are calibrated using a variety of beta or alpha sources. Sources are chosen based on energy and activity. Ratemeters or scalers are calibrated with specific probes. An electronic pulser is also used to check high voltage settings, threshold settings, instrument linearity, and digital displays.

All instruments currently used by inspectors are properly calibrated and there were sufficient calibrated instruments available through the review period. Instrument calibration records are available for the IMPEP team members to review.

IV. Technical Quality of Licensing Actions

18. How many specific radioactive material licenses does your program regulate at this time?

As of June 30, 2015, the Division regulates 197 active radioactive material licenses.

19. Please identify any major, unusual, or complex licenses which were issued, received a major amendment, were terminated, decommissioned, submitted a bankruptcy notification or renewed in this period.

Major, Unusual, or Complex Licenses Issued

None.

Major, Unusual, or Complex Licenses Amended

University of Utah Radiological Health Department, UT 1800001, Amendment #56, Licensing Action #82-2011, Issued August 16, 2011 - The licensee decommissioned a crematorium facility for disposing of lab animals.

Isomedix Operations, Inc., UT 1800074, Amendment #21, Licensing Action #115-2013, Issued August 14, 2013 – The licensee made major equipment upgrades to the irradiator control system.

University of Utah Radiological Health Department, UT 1800001, Amendment #59, Licensing Action #22-2014, Issued July 30, 2014 - The licensee disposed of a Model GR-9 irradiator containing 490 mCi of Co-60.

Isomedix Operations, Inc., UT 1800074, Amendment #23, Licensing Action #208-2014, Issued September 25, 2014 – The licensee increased their total possession limit of Co-60 from 4 MCi to 4.6 MCi, and provided new shielding calculations to address the increased source activity.

University of Utah Radiological Health Department, UT 1800001, Amendment #61, Licensing Action #273-2014, Issued April 9, 2015 - The licensee requested approval to relocate a J.L. Shepherd irradiator to a new location on campus.

Major, Unusual, or Complex Licenses Terminated

McKay Dee Hospital Center, UT 2900035, Terminated June 16, 2014. (Nuclear Pacemaker License).

Major, Unusual, or Complex Licenses Decommissioned

None.

Major, Unusual, or Complex Licenses with a Bankruptcy Notification

None.

Major, Unusual, or Complex Licenses Renewed

- Cardinal Health Nuclear Pharmacy Services, UT 1800225 Amendment #27, Licensing Action #155-2011, Issued September 17, 2013.

- University of Utah Radiological Health Department, UT 1800145, Amendment #18, Licensing Action #139-2013, Issued October 1, 2013.

- Utah State University, UT 0300159, Amendment #37, Licensing Action #100-2012, Issued October 29, 2013.

- Weber State University, UT 2900149, Amendment #14, Licensing Action #130-2013, Issued November 29, 2013.

- Nuclear Apothecary, Inc., UT 2700464, Amendment #06, Licensing Action #89-3013, Issued January 9, 2014.

- IHC Health Services, Inc., d.b.a. LDS Hospital, UT 1800102, Amendment #31, Licensing Action #201-2013, Issued January 24, 2014.

- University of Utah Radiological Health Department, UT 1800458, Amendment #12, Licensing Action 154-2012, Issued July 30, 2014.

- IHC Health Services, Inc., c/o Intermountain Medical Center, UT 1800494, Amendment #10, Licensing Action #125-2012, Issued October 29, 2014.

- Brigham Young University, UT 2500081, Amendment #15, Licensing Action 127-2012, Issued May 27, 2015.

20. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.

There were a number of exemptions given for submitting renewal applications. For Radioactive Materials, about 44 exemptions were granted for submitting a renewal application at least 30 days prior to the expiration date. The applications, although received late, were still treated as if the application was timely filed.

A couple of extensions have been given to Uranium One for the submission of the renewal application for the Shootaring Mill.

EnergySolutions has a license condition that prohibits the licensee from receiving sealed sources for disposal. A variance was given to the license condition allowing EnergySolutions to receive certain sealed sources for a period of one year. The variance was to aid in the disposal of sources collected by recognized programs collecting "orphan sources." More information is provided under Question 20. of the non-common performance indicator section.

21. What, if any, changes were made in your written licensing procedures (new procedures, updates, policy memoranda, etc.) during the reporting period?

To address changes in the administrative appeals process that were enacted with the passage of S.B. 21 (2012 General Session), a requirement to add a Statement of Basis regarding the Division's justification for approving or not approving modifications to licenses or new licenses was incorporated. Under S.B. 21, the appeals process was changed from a trial-type process to an administrative record based process. Therefore, the administrative record associated with licensing actions must meet the applicable statutory requirements and implementing rules. S.B. 21 also requires administrative appeals to be submitted to an administrative law judge (ALJ) for review. The ALJ then submits a recommendation to the Executive Director of the Department of Environmental Quality, who makes the final decision.

22. Identify by licensee name and license number any renewal applications that have been pending for one year or more. Please indicate why these reviews have been delayed and describe your action plan to reduce the backlog.

Pioneer Valley Hospital, Inc., a Campus of Jordan Valley Medical Center, UT 1800080

The license reviewer has some questions and issues with the information provided by the licensee in the renewal application, but no deficiency letter has been sent to the licensee. The delay in processing the license renewal in a timely manner was affected by a backlog of licensing actions experienced by the Division due to personnel changes. License reviewing staff has been working to address the backlog while also processing newer licensing actions to prevent more actions being delayed.

PacifiCorp – Energy West Mining, UT 0800163

The delay in processing the license renewal in a timely manner was affected by a backlog of licensing actions experienced by the Division due to personnel changes. License reviewing staff has been working to address the backlog while also processing newer licensing actions to prevent more actions being delayed.

Cache Landmark Engineering, UT 0300408

The licensee submitted a license renewal application after the license expiration date, and the licensee requested that the renewal application be considered as timely filed. However, the licensee failed to provide an explanation as to why the renewal application was late, why the Division should consider it as timely filed, and what hardship would result if the license were not renewed. Stemming from an inspection on June 27, 2014, the inspector informed the licensee that the licensee needed to provide information stating the reasons why the Division should consider the license as timely filed. The Division received that information from the licensee in a letter dated January 12, 2015; however, no timely filed letter was sent to the licensee.

The delay in processing the license renewal in a timely manner was affected by a backlog of licensing actions experienced by the Division due to personnel changes. License reviewing staff has been working to address the backlog while also processing newer licensing actions to prevent more actions being delayed.

Epic Engineering, P.C., UT 2600414

The delay in processing the license renewal in a timely manner was affected by a backlog of licensing actions experienced by the Division due to personnel changes. License reviewing staff has been working to address the backlog while also processing newer licensing actions to prevent more actions being delayed.

The Division proposes to complete the above license renewal actions by the middle of August 2015.

V. Technical Quality of Incident and Allegation Activities

23. For Agreement States, please provide a list of any reportable incidents not previously submitted to NRC (See Procedure SA-300, *Reporting Material Events*, for additional

guidance, OMB clearance number 3150-0178). The list should be in the following format:

<u>Licensee Name</u>	<u>License #</u>	<u>Date of Incident/Report</u>	<u>Type of Incident</u>
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All incidents that were reportable have been submitted to NRC.

24. Identify any changes to your procedures for responding to incidents and allegations that occurred during the period of this review.

Allegation training for all staff, including the LLRW and Uranium Mills program staff, was conducted on September 11, 2011. The same staff also received allegation refresher training in March 2013 and March 2015. The Division also generated a new allegation intake form that is designed to direct staff taking allegations to treat both oral and written allegations the same. Under the previous system, oral allegations were treated as additional information and not processed as allegations. The training has also made it clear there are no “off the record” conversations between licensee staff and Division staff.

C. NON-COMMON PERFORMANCE INDICATORS

I. Compatibility Requirements

25. Please list all currently effective legislation that affects the radiation control program. Denote any legislation that was enacted or amended during the review period.

During the 2012 General Session of the Utah Legislature, the following two bills were enacted as follows:

S.B. 11, *Department of Environmental Quality Boards Adjudicative Proceedings*, Modifies requirements and procedures for adjudicative proceedings where a party challenges an agency order, other than a termination order, relating to a permit, plan, license, approval order, or other administrative authorization made by an executive secretary under Title 19, Environmental Quality Code. Revises the administrative appeals process from a trial-type to record-based approach.

S.B. 21, *Department of Environmental Quality Boards Revisions*, Changes the composition of each board created under Title 19, Environmental Quality Code, requires specific qualifications for a board member, subjects a board member to certain requirements, transfers some powers and duties from the boards to the executive director or division directors, and gives rulemaking authority to the department for certain requirements, otherwise all other rulemaking authority is retained by a given board.

During the 2012 Calendar year, UAC R313-24 Uranium Mills and Source Material Mill Tailings Disposal Facility Requirements were submitted to the Division of Administrative Rules for the five year notice and review and statement of continuation. The effective date for this rule was May 24, 2012.

During the 2013 General Session of the Utah Legislature, H.B. 124, *Radiation Control Amendments*, and the Radiation Control Board was charged with establishing rules that address the licensing and permitting of low-level radioactive waste disposal as follows:

Categorize different levels of license and permit applications submitted to the Division of Radiation Control (DRC) by a low-level radioactive waste disposal facility; and Set timeframes, based on the category, for the DRC to perform and complete the required application reviews and make a determination (UAC R313-25, License Requirements for Land Disposal of Radioactive Waste – General Provisions).

Additionally, H.B. 124 increased the maximum civil penalty for violations of state radiation control laws, rules, and enforceable administrative actions to \$10,000 per violation (UAC R313-14, Violations and Escalated Enforcement). These rules became effective April 3, 2014.

During calendar year 2014, UAC R313-17-4 Special Procedures for Decisions Associated with Licenses for Uranium Mills and Disposal of Byproduct Material was submitted to the Division of Administrative Rules on August 14, 2014 for publication in the Utah Bulletin. This rule is in regards to public concerns raised to the NRC regarding public participation procedures for licensing Uranium mills and radioactive byproduct material per 42 U.S.C. § 2021(o)(3). This rule became effective on February 17, 2015.

During the 2015 General Session of the Utah Legislature, the following two bills were enacted as follows:

S.B. 173, Financial Assurance Determination Review Process,

Provides for arbitration or a special adjudicative proceeding for a challenge of a financial assurance determination made by the division director; requires the board to include certain provisions in rules for financial assurance requirements for radioactive waste land disposal facilities, including an option to allow for the use of competitive bids to determine an acceptable financial assurance cost estimate.

S.B. 244, Department of Environmental Quality Modifications,

Combines the Division of Radiation Control with the Division of Solid and Hazardous Waste to create a new Division, titled, Division of Waste Management and Radiation Control. Also, consolidates the Radiation Control Board with the Solid and Hazardous Waste Control Board to create a new board, Waste Management and Radiation Control Board. Revises the number of board members to twelve and designates the various area a board member is to represent. The effective date of the re-organization is July 1, 2015, the beginning of the state's fiscal year.

NRC provided comments regarding S.B. 244 and S.B. 173 in letter dated March 18, 2015 (ML15058A256). The Division's final response to this request is pending.

26. Are your regulations subject to a "Sunset" or equivalent law? If so, explain and include the next expiration date for your regulations.

The *Utah Code Annotated* (UCA §63G-3-502) provides that all administrative rules in effect on February 28 expire on May 1 each year unless reauthorized by the Legislature. During each general session, the Administrative Rules Review Committee files a bill reauthorizing all rules except any listed as "not reauthorized." The bill may except for reauthorization an entire rule, a single section of a rule, or any complete paragraph of a rule. Agencies whose rules are listed as not reauthorized have the opportunity to respond before passage of the bill. If the

reauthorization bill fails to pass, the governor may reauthorize all rules by publishing a notice in the *Utah State Bulletin* (Utah's analogue to the *Federal Register*). (In effect, the governor may override the Legislature's veto of a rule.)

Exempted from the May 1 expiration are all rules explicitly mandated by federal law or regulation, or rules founded on a provision of Utah's Constitution that vests the agency with specific constitutional authority to regulate. This reauthorization scheme has been controversial, but it has not been constitutionally tested in the courts. Nonetheless, it stands in Utah law as a modest form of legislative veto of executive branch rulemaking.

The Rulemaking Act also requires an agency to review each of its administrative rules within five years of the rule's original effective date or last five-year review. To retain a rule as part of the *Utah Administrative Code*, an agency must also file a "Five-Year Notice of Review and Statement of Continuation" before the rule's anniversary date. The purpose of the review is to remind agencies to amend or repeal rules that are archaic in form, are no longer used, for which statutory authority no longer exists, or are otherwise unnecessary. A summary of the status for the five-year review of radiation control rules is available.

27. Please review and verify that the information in the enclosed State Regulation Status (SRS) sheet is correct. For those regulations that have not been adopted by the State, explain why they were not adopted, and discuss actions being taken to adopt them. If legally binding requirements were used in lieu of regulations and they have not been reviewed by NRC for compatibility, please describe their use.

Based upon the most recent SRS Sheet dated May 15, 2015, the following update is provided:

RATS ID 2011-2: All rules have been finalized and will be transmitted to the NRC on July 24, 2015.

RATS ID 2012-2: The rule has been finalized and was transmitted to the NRC on March 13, 2015.

RATS ID 2012-3 and RATS ID 2012-4 (Partial): All rules for RATS ID 2012-3 and the definition for sealed source and device registry found in 10 CFR 32.2 have been finalized and were transmitted to the NRC on July 7, 2015.

RATS ID 2012-4 (Remaining): The remaining rules for RATS ID 2012-4 have been finalized by the Utah Radiation Control Board and will have an effective date of August 21, 2015.

RATS ID 2013-1: The rule has been finalized and was transmitted to the NRC on March 13, 2015.

28. If you have not adopted all amendments within three years from the date of NRC rule promulgation, briefly describe your State's procedures for amending regulations in order to maintain compatibility with the NRC, showing the normal length of time anticipated to complete each step.

It appears that all amendments, since the last IMPEP review, have been adopted within three years from the date of the NRC rule promulgation. The Division expects to maintain this status for future amendments made by the NRC.

II. Sealed Source and Device (SS&D) Evaluation Program

29. Prepare a table listing new and amended (including transfers to inactive status) SS&D registrations of sources and devices issued during the review period. The table heading should be:

<u>SS&D Registry Number</u>	<u>Manufacturer, Distributor or Custom User</u>	<u>Product Type or Use</u>	<u>Date Issued</u>	<u>Type of Action</u>
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A response is not provided, because the question is not applicable to the Utah Radiation Control Program. On January 16, 1996, Utah's Governor Leavitt requested to relinquish to the NRC Utah's authority to evaluate sealed source and device applications. After reviewing the request and the staff's analysis, the Commission decided to reassume regulatory authority for sealed source and device evaluations in the State of Utah, effective June 1, 1996.

30. Please include information on the following questions in Section A, as they apply to the SS&D Program:

Technical Staffing and Training - Questions 2-9
Technical Quality of Licensing Actions - Questions 18-22
Technical Quality of Incident and Allegation Activities - Questions 23-24

A response is not provided, because the question is not applicable to the Utah Radiation Control Program. On January 16, 1996, Utah's Governor Leavitt requested to relinquish to the NRC Utah's authority to evaluate sealed source and device applications. After reviewing the request and the staff's analysis, the Commission decided to reassume regulatory authority for sealed source and device evaluations in the State of Utah, effective June 1, 1996.

III. Low-level Radioactive Waste Disposal Program

31. Please include information on the following questions in Section A, as they apply to the Low-Level Radioactive Waste Disposal Program:

Technical Staffing and Training - Questions 2-9

2. See organization charts in Question 2. in the "Common Performance Indicators" section above.
3. See response to Question 3. in the "Common Performance Indicators" section above.

4. There have been four individuals hired to work in the Low-Level Radioactive Waste Disposal Program and two individuals in the X-ray program, and one in the Indoor Radon program since the last IMPEP review. Their professional experience is presented in our response to Question 4. in the "Common Performance Indicators" section above.
5. Not applicable.
6. See response to Question 6. in the "Common Performance Indicators" section above.
7. See response to Question 7. in the "Common Performance Indicators" section above.
8. See response to Question 8. in the "Common Performance Indicators" section above.
9. Yes, see response to Question 9. in the "Common Performance Indicators" section above.

Status of Materials Inspection Program - Questions 10-14

10. The licensee is not inspected less frequently than the schedule established by NRC. See also the response to Question 10. in the "Common Performance Indicators" section above.
11. Radiation Safety staff conducted approximately 169 modular inspections over the review period. Thirty-seven (37) Groundwater inspection modules were conducted and 31 engineering inspection modules were completed. In total, there were approximately 237 inspections conducting during the review period.
12. The low-level radioactive waste disposal facility (EnergySolutions – License # UT2300249) is a priority 1 licensee and is currently inspected on a modular basis. The agency conducts modular inspections regarding radiation safety, engineering, and groundwater. There are forty-three (43) individual modules developed for this licensee. These inspections are assigned at the beginning of the year by the program managers for appropriate staff members to complete. These inspections do not include the inspections performed as part of the Generator Site Access Permit Program.
13. If inspections do not get completed during the year, then they are typically conducted during the first or second quarter of the following year. Program managers review the yearly inspection plan and coordinate with staff regarding the date the inspection will be conducted.
14. Not applicable.

Technical Quality of Inspections - Questions 15-17

15. See response to Question 15. in the "Common Performance Indicators" section above. In addition, module inspections are update on an annual basis prior to being conducted by staff. Over the course of the review period, several modules were combined with other modules, some were eliminated and some new ones were developed.

16. The following table shows the number and types of supervisory accompaniments made during the review period.

Inspector	Supervisor	License Category	Date
Kevin Carney	Phil Goble	4-a	11/14/2011
Kevin Carney	Phil Goble	4-a	8/29/2012
Kevin Carney	Phil Goble	4-a	10/3/2013
Kevin Carney	Phil Goble	2-b	5/22/2014
Kevin Carney	Phil Goble	4-a	4/23/2015
David Esser	Phil Goble	4-a	9/28/2011
David Esser	Phil Goble	4-a	9/18/2012
David Esser	Phil Goble	4-a	10/24/2013
David Esser	Phil Goble	4-a	10/30/2014
David Esser	Phil Goble	4-a	5/11/2015
Jule Fausto	Phil Goble	GSA/4-a	9/12/2011
Jule Fausto	Phil Goble	GSA/4-a	9/24/2012
Jule Fausto	Phil Goble	GSA/4-a	10/7/2013
Jule Fausto	Phil Goble	GSA/4-a	4/7/2014
Jule Fausto	Phil Goble	GSA/4-a	6/22/2015
Dean Henderson	Phil Goble	4-a	10/12/2011
Dean Henderson	Phil Goble	2-b	6/20/2012
Dean Henderson	Phil Goble	2-b	8/13/2013
Dean Henderson	Phil Goble	2-b	6/17/2014
Dean Henderson	Phil Goble	2-b	6/16/2015
Boyd Imai	Phil Goble	4-a	10/25/2011
Boyd Imai	Phil Goble	4-a	10/10/2012
Boyd Imai	Phil Goble	4-a	10/31/2013
Boyd Imai	Phil Goble	4-a	10/22/2014
Boyd Imai	Phil Goble	2-b	5/20/2015
Tom Rushing	Phil Goble	2-b	10/18/2011
Tom Rushing	Phil Goble	2-b	6/21/2012
Tom Rushing	Phil Goble	2-b	11/4/2013
Tom Rushing	Phil Goble	4-a	10/2/2014
Tom Rushing	Phil Goble	4-a	4/13/2015
Russ Topham	Phil Goble	2-b	12/20/2012
Russ Topham	Phil Goble	4-a	1/17/2013
Russ Topham	Phil Goble	2-b	11/13/2014
Russ Topham	Phil Goble	2-b	4/16/2015

17. See response to Question 17. in the “Common Performance Indicators” section above.

Technical Quality of Licensing Actions - Questions 18-22

18. One, *EnergySolutions*, license number UT2300249.
19. The *EnergySolutions* license renewal was started November of 2012 and is currently under review. Several revisions to the application have been submitted to the DRC based on interrogatories. In addition, several major and minor amendments were completed during the review period. Major amendments include the combining of the

Class A cell with the Class A North cell to form the Class A West cell (Amendment 14), changes to Conditions 4, 22, 31, 32.E, 39.E, 43, 73.A.iii, and iv, 73.B, 76, and 77 (Amendment 16). Amendment 16 has been appealed by EnergySolutions in Request for Agency Action dated June 11, 2014 (DRC-2014-003881). Other minor amendments include Amendments 11, 12, 13, 15, 17, and 18. Review of EnergySolutions Depleted Uranium (DU) Performance Assessment has been ongoing throughout the review period. The public comment period was initiated on April 13, 2015. However, the very next day, April the Licensee requested the public comment period be postponed until the Licensee could provide additional information to the eight or so outstanding issues identified in the Safety Evaluation Report (SER). DEQ granted EnergySolutions' request to delay public comment on the Safety Evaluation Report (SER) to give the company more time to address issues that were not resolved in the report and provide the public with an opportunity to comment on a fuller record containing this additional information. The public comment period for the SER will be placed on hold for a limited time. Public informational meetings were held in Tooele and Salt Lake City May 6, and May 7 respectively. The formal public comment period will begin once the additional information has been submitted and reviewed by the Division. (providing for 45 days of public input). Following the review and evaluation of the submitted information, the Division Director intends to render a decision later this year.

20. The Division has granted an exemption regarding disposal of sealed sources involving the Low-Level Radioactive Waste Facility in Utah. Specifically, a one-year variance of license condition 16A of EnergySolutions' radioactive materials license was granted to allow for the receipt and disposal of sealed radioactive sources collected under the auspices of the Conference of Radiation Control Program Directors' (CRCPD) national sealed source collection program (Source Collection and Threat Reduction or SCATR). This program is funded by the U.S. Department of Energy, National Nuclear Security Administration's Global Threat Reduction Initiative (GTRI). Both SCATR and GTRI's source recovery programs are instrumental in contributing to national security by safeguarding disused sealed sources that exist throughout the country and serve as a viable option for the final disposition of these sources. The license variance was issued in letter dated April 11, 2012, that stipulated the one-year variance would start on the receipt of the initial shipment at the Clive facility. An extension was requested by the licensee in letter dated September 17, 2014. The DRC director approved the extension until December 31, 2014 in letter dated September 29, 2014. A total of three containers holding Class A sealed sources. A final report was submitted by EnergySolutions.
21. Based on an internal process improvement program Lean Six Sigma, the Agency revised its organization and procedure for handling LLRW AND U-Mill Licensing Actions in 2011. Revisions to the Division Administrative Policies document were completed in June 2012.
22. The Renewal License Application for EnergySolutions (UT2300249) as mentioned above was submitted November 2012. The application contained a new Performance Assessment (PA) regarding the disposal of blended waste that has radioactivity at or very close to the Class A limit as prescribed in 10 CFR Part 61. As part of the new performance assessment, the licensee requested a new cover design (evaporation/transpiration ET design) as part of the assessment. As part of this PA, the DRC requested the licensee address additional isotopes that have been disposed in the embankment, but were previously not included in the initial Class A performance assessment. However, the main delay in reviewing and completing this review deals

with the Infiltration Contaminate Transportation Model (ICTM) and input parameters regarding the cover system.

Technical Quality of Incident and Allegation Activities - Questions 23-24

- 23. See response to Question 23. in the “Common Performance Indicators” section above.
- 24. See response to Question 24. in the “Common Performance Indicators” section above.

IV. Uranium Recovery Program

- 32. Please include information on the following questions in Section A, as they apply to the Uranium Recovery Program:

Technical Staffing and Training - Questions 2-9

- 2. See organization chart in response to Question 2. in the “Common Performance Indicators” section above.
- 3. See response to Question 3. in the “Common Performance Indicators” section above.
- 4. There have been four individuals hired to work in the Uranium Recovery Program since the last IMPEP review. Their professional experience is presented in the response to Question 4. in the "Common Performance Indicators" section above.
- 5. None
- 6. See response to Question 6. in the “Common Performance Indicators” section above.
- 7. See response to Question 7. in the “Common Performance Indicators” section above.
- 8. See response to Question 8. in the “Common Performance Indicators” section above.
- 9. Yes, see response to Question 9. in the “Common Performance Indicators” section above.

Status of Materials Inspection Program - Questions 10-14

- 10-12. The Division’s uranium mill licensees include an active mill, a mill undergoing decommissioning and a mill in standby status. A comprehensive radiation safety

inspection is conducted at each facility. Current program plans call for the annual inspection to be performed over four quarters for the active mill and annually for the mills undergoing decommissioning and in a standby status. Inspections are also conducted on an ad hoc basis.

EnergySolutions (11e.(2) disposal)	UT 2300478	2-b	(more frequent)
Rio Algom Mining	UT 1000481	2-b	(more frequent)
Energy Fuels Resources	UT 1900479	2-b	(more frequent)
Uranium One Americas Inc.	UT 0900480	2-b	(more frequent)

The agency conducts modular inspections of radiation safety, groundwater, and engineering activities at these facilities. There are 14 radiation safety modules for Energy Fuels Resources (active mill), two modules for Uranium One Americas Inc. (standby status), and one module for Rio Algom Mining (decommissioning). In addition, there are approximately 22 individual groundwater modules and approximately 12 engineering modules regarding the four licensees. Radiation safety inspections regarding the EnergySolutions 11e.(2) disposal license are performed in conjunction with the low-level waste inspection modules. During the NRC review period the Division performed the following modular inspection at the four 11e.(2) facilities: 34 radiation safety inspections (19 at Denison Mines, 8 at Uranium One and 7 at Rio Algom), 43 engineering inspections, and 52 groundwater inspections.

13. If inspections do not get completed during the year, then they are typically conducted during the first or second quarter of the following year. Program managers review the yearly inspection plan and coordinate with staff regarding the date the inspection will be conducted.
14. Not applicable.

Technical Quality of Inspections - Questions 15-17

15. None for the Uranium Mills Program: See response to Question 15. in the "Common Performance Indicators" section above.
16. See response to Question 16. under the Low-Level Waste program above.
17. See response to Question 17. in the "Common Performance Indicators" section above.

Technical Quality of Licensing Actions - Questions 18-22

18. As of June 2015, the Division regulates four radioactive material licenses under the Uranium Mills Program:

EnergySolutions (11e.(2) disposal)	UT 2300478	2-b	(more frequent)
Rio Algom Mining	UT 1000481	2-b	(more frequent)
Energy Fuels Resources	UT 1900479	2-b	(more frequent)
Uranium One Americas Inc.	UT 0900480	2-b	(more frequent)

19. The Denison Mines license renewal application was submitted in February 2007, and the review of the application has continued through the 2011 IMPEP review. The initial review and draft license, Safety Evaluation Report and Statement of Basis went to public comment in October 2011. Based on the public comments received, the Division chose to perform an independent environmental dose assessment (Mildose) using input data from yearly operational values from 2007 through 2014, and evaluate the revised reclamation plan version 5.0. Over the last several years, the Division has completed the dose assessment and is finishing up addressing the concerns regarding the reclamation plan. The public comment period should begin soon.
20. See Question 22. below regarding Uranium One Americas, Inc., regarding an extension of the license application.
21. On August 14, 2014, UAC R313-17-4 Special Procedures for Decisions Associated with Licenses for Uranium Mills and Disposal of Byproduct Material was submitted to the Division of Administrative Rules for publication in the Utah State Bulletin. This rule is in regards to public concerns raised to the NRC regarding public participation procedures for licensing Uranium mills and radioactive byproduct material per 42 U.S.C. § 2021(o)(3). This rule became effective on February 17, 2015. Currently only one licensing action has gone through the public hearing process involving cross examination. This licensing action was the Dawn Mining alternate feed amendment request by Energy Fuels Resources-White Mesa Mill in 2013/14. The public hearing took place on Thursday, October 9, 2013, from 2 pm to 5 pm in the DEQ board room, Room 1015, at the Utah Department of Environmental Quality, 195 North 1950 West, Salt Lake City, Utah. The purpose of the public hearing was to take comments and include an opportunity for questions and answers, therefore meeting the requirements of 42 U.S.C § 2021(o)(3)(A) as described in the DRC's letter to Deborah Jackson of the Nuclear Regulatory Commission dated August 6, 2013.
22. **Energy Fuels Resources Inc., (formerly Denison Mines) UT 1900479** – The licensee asked the Division to prioritize other license and permitting actions over the last few years. In addition, the licensee requested a new cover design Evaporation/Transpiration (ET) cover which they wanted approved as part of the license renewal application (LA). However, due to incomplete submissions of information, the Division has moved forward with the LA and is now ready to provide an independent Environmental Assessment (Mildose Model), draft license and draft Reclamation Plan (Rev. 6.0) for public comment. These documents are scheduled to be available for public comment in August or September 2015.

Uranium One Americas, Inc., UT 0900480 - License Amendment No. 6: License Amendment 6 extends the expiration date of the RML two years to April 30, 2014. As a condition for granting this extension request, the DRC in its letter to the Licensee dated October 13, 2011, requested an updated Reclamation Plan, unrestricted decommissioning costs, Standard Operational Procedures (SOPs), and training records. This requested submittal was assigned the due date of 30 days prior to the previous RML expiration date of April 30, 2012. This additional information was submitted March 29, 2014 and reviewed by the Division.

On January 14, 2014 the Director of the Utah Division of Radiation Control (DRC) received a notice of Change of Control and Ownership from Uranium One Americas, Inc. The submission is currently under review by the Division. Additional information was provided in a letter dated January 20, 2014. The following links provide interested

stakeholders with information regarding the Change in Control Request to Black Range Minerals.

On March 17, 2014, however, Black Range Minerals announced that the acquisition of Uranium One Inc's conventional mining assets has failed, since "it has not been possible to obtain several requisite regulatory approvals prior to the Completion Date [March 14, 2014]".

On March 31, 2014 the Director of the Utah Division of Radiation Control (DRC) received a letter from Uranium One Americas, Inc. requesting a 6 month extension of the current radioactive material license. The submission was reviewed by the Division and on April 15, 2014 the Director of the Utah Division of Radiation Control (DRC) provided a letter to Uranium One Americas, Inc. granting a 6 month extension of the current radioactive material license. The Director granted the extension in accordance with R313-22-36(6).

On August 15, 2014 the Director of the Utah Division of Radiation Control (DRC) received a Notice of Change of Control and Ownership from Uranium One Americas, Inc and Anfield Resources Holding Corp. The submission is currently under review by the Division. The DRC has requested additional information in an RFI letter dated September 16, 2014. The Director reviewed the additional information provided in letter dated September 29, 2014. Based on this review, the Director in letter dated October 17, 2014 has concurred with the Change of Control and Ownership from Uranium One Americas, Inc., to Anfield Resources Holding Corp. Since the Director concurs with the Proposed Transaction in accordance with UAC R313-19-34(2), when the Proposed Transaction is completed, Anfield will be responsible for providing an amendment request to modify the name of both the RML and Permit. This amendment will require a minimum 30-day public comment with an opportunity for a public hearing. If a public hearing is requested an appropriate representative for Anfield must be present. In addition, Anfield will be responsible for submitting a license renewal application. As requested, the date for submitting the license renewal application will be extended to October 31, 2015.

Rio Algom Mining LLC., UT 1900481- has a current RML for a former uranium milling facility in the Lisbon Valley, San Juan County, Utah. The License includes groundwater monitoring requirements and concentration limits which are based on previous modeling approvals of an Application for Alternate Concentration Limits (ACLs), approved by the U.S. Nuclear Regulatory Commission (NRC) per a May 11, 2004 License Amendment 66 (Source Materials License SUA-1119). The state of Utah obtained primacy to administer the Uranium Mill program in Utah from the NRC in August 2004, and the DRC included the conditions previously approved by the NRC in the License. Based on DRC concerns regarding the ACL concentrations, the ground water monitoring compliance requirements and compliance limits were revised and included in an amendment of the License on March 6, 2006 (Amendment 2). All changes to the concentration limits were based on ground water concentration break through curves (groundwater model) included in the Long-Term Groundwater Monitoring Plan (LTGMP). Below is a summary table of the groundwater monitoring site assessment.

Date	Title
07/23/2013	<u>Stipulation and Consent Agreement for the Phase 2 Work Plan</u>
03/07/2013	<u>Work Plan Phase 2 of Supplemental Site Assessment to Address Out-of-Compliance Status at Trend Wells RL-1 and EF-8</u>
03/07/2013	<u>Phase I Report for Supplemental Site Assessment to Address Out-of-Compliance Status at Trend Wells RL-1 and EF-8</u>
09/10/2012	<u>Stipulation and Consent Agreement for the Rio Algom Supplemental Site Assessment</u>
08/02/2012	<u>Rio Algom Revised Final Work Plan</u> Supplemental Site Assessment to Address Out-of-Compliance Status at Trend Wells RL-1 and EF-8
05/01/2012	<u>DRC Request for Information</u>
04/13/2012	<u>Rio Algom Supplemental Site Assessment</u> To address Out-of-Compliance Status at Trend Wells RL-1 and EF-8
02/06/2012	<u>DRC Request for Information</u>
01/09/2012	<u>DRC Technical Memorandum</u>
12/13/2011	<u>Rio Algom Supplemental Site Assessment</u> To address Out-of-Compliance Status at Trend Wells RL-1 and EF-8

In addition, Rio Algom submitted the Final Construction Completion Report and the License Renewal Application dated November 26, 2013 and was received by the Division on December 5, 2013. The Division has been reviewing the Construction Completion Report and sent a Request for Information letter dated November 26, 2014 back to Rio Algom. The License Application has been put on hold until issues regarding the Completion Report have been better defined and the path forward is to request the licensee conduct RESRAD On-site to demonstrate dose limits have been met based on current data supplied in the Application and additional radon monitoring of the tailings cell, and any additional radiological monitoring the licensee need to obtain prior running the model.

EnergySolutions UT 2300478 – License Renewal Application -Timeline

The original renewal application for the 11e.(2) Radioactive Material License (RML) was submitted to the Nuclear Regulatory Commission (NRC) on May 1, 2003. At the time the State of Utah was in negotiation with the NRC to add 11e.(2) byproduct material to the State of Utah's agreement state status, so the NRC did not initiate review of the renewal application at that time. The following is a timeline of events for the renewal of this 11e.(2) RML:

- August 16, 2004 the State of Utah's agreement with the NRC was amended to include 11e.(2) byproduct material thus giving the State of Utah regulatory authority over Envirocare of Utah's (now EnergySolutions) 11e.(2) byproduct RML;
- February 4, 2005, the Utah Division of Radiation Control (DRC) issued Envirocare of Utah a new 11e.(2) RML numbered UT2300478 and recognized that the RML was under timely renewal;
- February 28, 2005, Envirocare of Utah submitted the 11e.(2) RML renewal application to the DRC. The review was conducted by DRC contractor URS Corporation;

- June 29, 2005, the DRC issued the first round of Interrogatories for the 11e.(2) RML renewal;
- February 28, 2006, Envirocare of Utah submitted Revision 2 of the 11e.(2) RML renewal application;
- March 26, 2006, RML UT 2300478 was amended to change the corporate name from Envirocare of Utah Inc. to EnergySolutions LLC;
- February 13, 2007 the DRC issued a technical interrogatory;
- May 15, 2007, EnergySolutions submitted Revision 3 of the 11e.(2) RML renewal;
- October 16, 2007 the DRC issued round 2 interrogatories to EnergySolutions;
- After the round 2 interrogatories were issued, the DRC management after consultation with the Licensee, placed the review of the 11e.(2) renewal on hold to reallocate DRC resources to other Licensing actions which include but not limited to:
 - Class A License: Class A Combined License Proposal;
 - Class A License: Capital Improvements License Amendment;
 - Class A License: RML Renewal;
 - Class A License: Class A South License Proposal;
 - Class A License: Class A West License Amendment;
 - Class A License: Approximately 18 other smaller License Amendments and License Variances;
- 11e.(2) License: Eight License Amendments;
- Miscellaneous 11e.(2) Licensing Actions from other Licensee's; and
- EnergySolutions' RML Application for Waste Processing. (Later Rescinded bym EnergySolutions).
- January, 2012 the DRC and EnergySolutions agreed to pick up the renewal license action;
- May 4, 2012 EnergySolutions submitted revision 4;
- DRC staff performed a completeness review and on May 22, 2012 sent a letter to EnergySolutions requesting for additional information; and
- June 1, 2012 EnergySolutions submitted revision 5 of the 11e.(2) RML renewal application.
- January 17, 2013 DRC mailed Round 1 Interrogatories on Rev. 5 of the 11e.(2) License Renewal Application (LRA) to EnergySolutions
- June 30, 2014, The Licensee responded to the Round I Interrogatories in a submittal titled "Revision 6 of the LRA for Radioactive Material License UT2300478."
- June 2, 2015 DRC mailed Round 2 Interrogatories on Rev.6 of the LRA.

In addition to the License Renewal Application review, the DRC has performed 4 other licensing action involving EnergySolution's 11e.(2) disposal license UT2300478 during the review period. Three of these amendments (amendments 7, 9 and 10) were minor, and license amendment 8 was considered major.

Technical Quality of Incident and Allegation Activities - Questions 23-24

23. See response to Question 23. in the "Common Performance Indicators" section above.
24. See response to Question 24. in the "Common Performance Indicators" section above.

ORGANIZATION CHART

July 1, 2015

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL

DIVISION DIRECTOR

SCOTT ANDERSON

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MATERIALS REQUESTED TO BE AVAILABLE FOR THE ON-SITE PORTION OF AN IMPEP REVIEW

Please have the following information available for use by the IMPEP review team when they arrive at your office:

- List of open license cases, with date of original request, and dates of follow-up actions.
- List of licenses terminated during review period.
- Copy of current log or other document used to track licensing actions.
- List of all licensing actions completed during the review period (sorted by license reviewer, if possible).
- Copy of current log or other document used to track inspections.
- List of all inspections completed during the review period (sorted by inspector, if possible).
- List of inspection frequencies by license type.
- List of all allegations occurring during the review period. Show whether the allegation is open or closed and whether it was referred by NRC.
- List of all licenses that your agency has imposed additional security requirements upon.

ALSO, PLEASE HAVE THE FOLLOWING DOCUMENTS AVAILABLE:

- All State regulations
- Statutes affecting the regulatory authority of the State program
- Standard license conditions
- Technical procedures for licensing, model licenses, review guides
- SS&D review procedures, guides, and standards
- Instrument calibration records
- Inspection procedures and guides
- Inspection report forms

Documented training plan, if applicable

- Records of results of supervisory accompaniments of inspectors
- Emergency plan and communications list
- Procedures for investigating allegations
- Procedures for investigating incidents
- Enforcement procedures, including procedures for escalated enforcement, severity levels, civil penalties (as applicable)
- Job descriptions