

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
QUESTIONNAIRE

**UTAH Department of Environmental Quality**

Reporting Period: July 19, 2008 to June 27, 2011; revised to: June 18, 2007 to June 27, 2011

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.

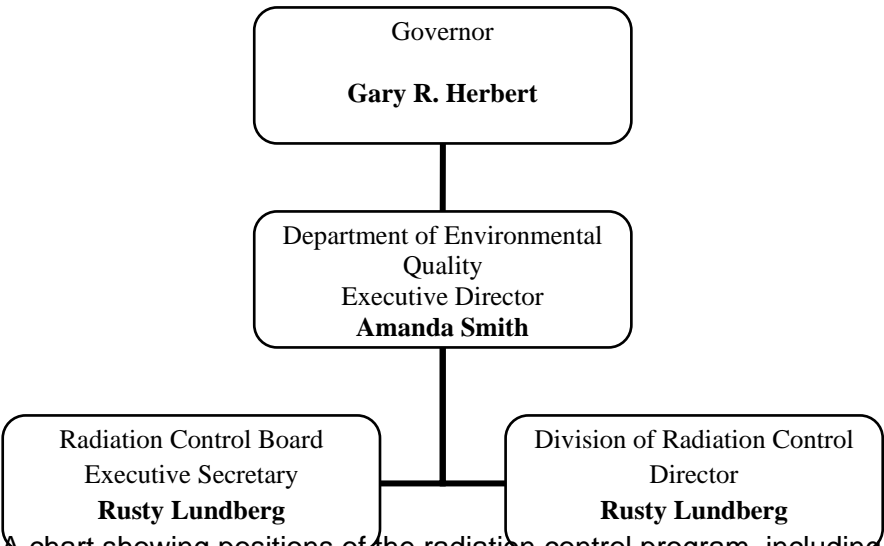
Not Applicable. Two open items were resolved. (See October 27, 2008 MRB report)

**B. COMMON PERFORMANCE INDICATORS**

**I. Technical Staffing and Training**

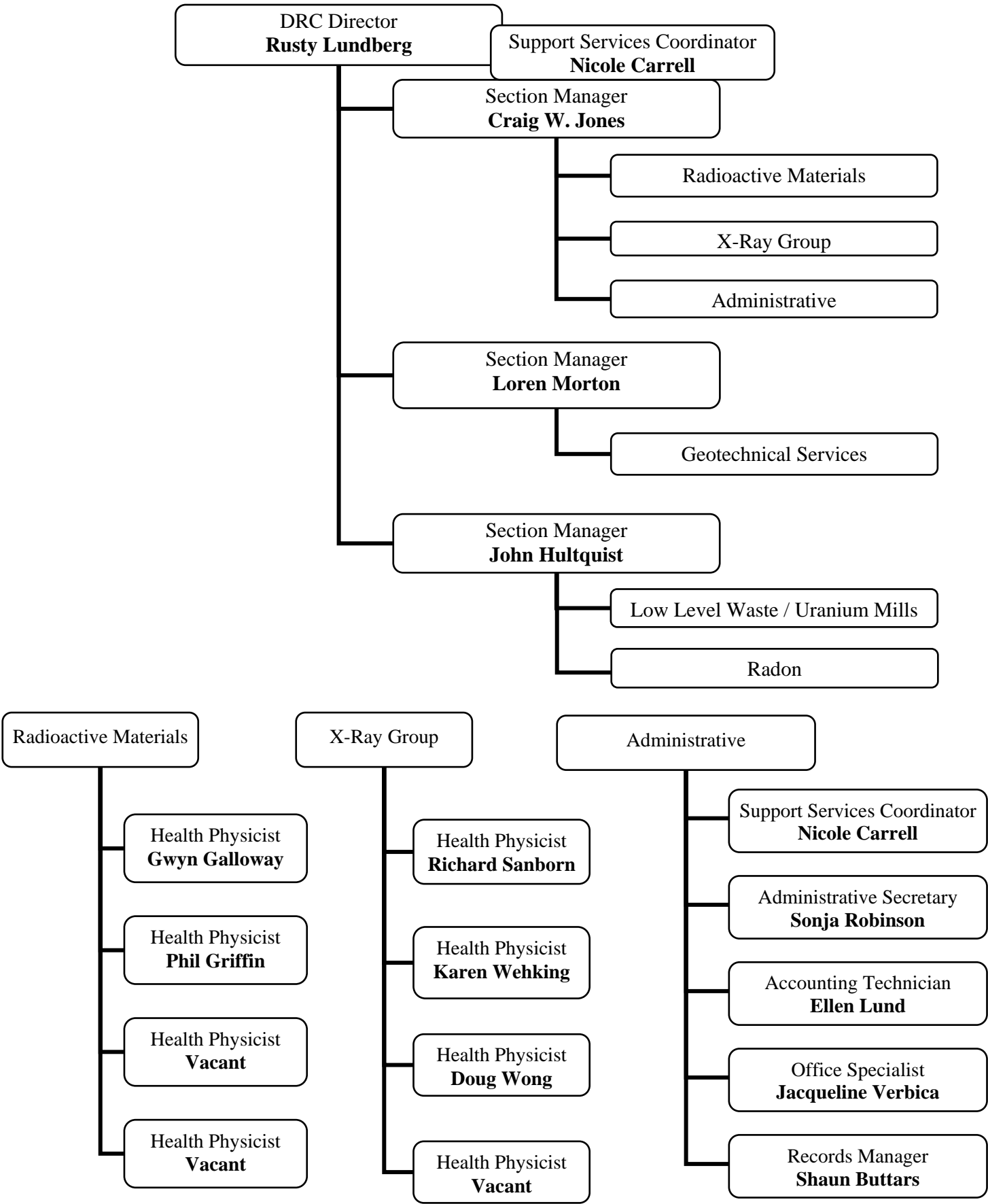
2. Please provide the following organization charts, including names and positions:

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

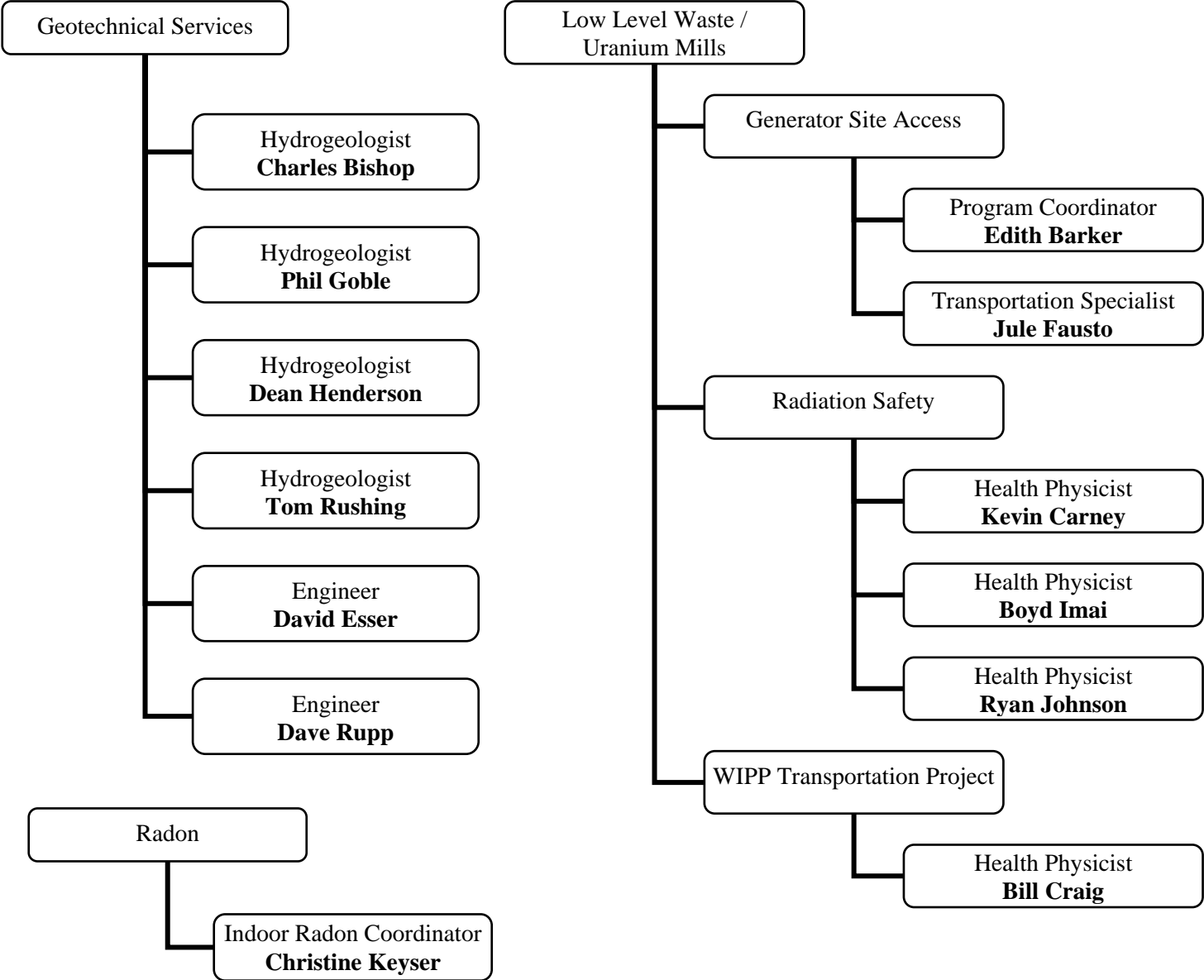


- (b) A chart showing positions of the radiation control program, including management; and

<sup>1</sup> 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.



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. If consultants were used to carry out the program's radioactive materials responsibilities, include their efforts. The table heading should be:
- | <u>Name</u> | <u>Position</u> | <u>Area of Effort</u> | <u>FTE%</u> |
|-------------|-----------------|-----------------------|-------------|
|-------------|-----------------|-----------------------|-------------|

<b>Name</b>	<b>Position</b>	<b>Area of Effort</b>	<b>FTE%</b>
Barker, Edith	Environmental Program Coordinator	Generator site access	1.00
Bishop, Charlie	Environmental Scientist III	Low-level waste	1.00
Carney, Kevin	Environmental Scientist III	Low-level waste Uranium Mills	0.40 <u>0.60</u> 1.00
Craig, Bill	Environmental Scientist III	Low-level waste Emergency Response (RSO) Instrument calibration and repair	0.70 0.10 <u>0.20</u> 1.00
Esser, David	Environmental Engineer III	Low-level waste	1.00
Fausto, Jule	Environmental Scientist III	Generator site access	1.00
Galloway, Gwyn	Environmental Scientist III	Radioactive materials inspection/licensing	1.00
Goble, Phillip	Environmental Scientist II	Low-level Waste Uranium Mills U mills - Title I (groundwater)	0.30 0.60 <u>0.10</u> 1.00
Griffin, Philip	Environmental Scientist III	Radioactive materials inspection/licensing	1.00
Henderson, Dean	Environmental Scientist III	Low-level waste Uranium Mills	0.10 <u>0.90</u> 1.00
Hultquist, John	Environmental Manager I	Low-level waste Uranium mills Radon	0.65 0.25 <u>0.10</u> 1.00
Imai, Boyd	Environmental Scientist III	Low-level waste	1.00
Johnson, Ryan	Environmental Scientist III	Low-level waste Uranium Mills Generator Site Access	0.60 0.30 <u>0.10</u> 1.00
Jones, Craig	Environmental Manager II	Radioactive materials licensing/inspection X-ray	0.50 <u>0.50</u> 1.00
Keyser, Christine	Information Specialist (Half Time)	Radon	0.50

Lundberg, Rusty	Environmental Manager III	Low-level waste Radioactive materials X-Ray Uranium Mills Radon	0.35 0.30 0.10 0.20 <u>0.05</u> 1.00
Morton, Loren	Environmental Manager I	Low-level waste Uranium Mills	0.75 <u>0.25</u> 1.00
Rupp, David	Environmental Engineer III	Uranium Mills	1.00
Rushing, Tom	Environmental Scientist III (All Groundwater)	Low-level waste Radioactive materials licensing support U mills - Title I	0.30 0.10 <u>0.60</u> 1.00
Sanborn, Richard	Environmental Scientist III	X-ray	1.00
Wehking, Karen	Environmental Scientist III	X-ray	1.00
Wong, Doug	Environmental Scientist III	X-ray	1.00

Consultants provide technical assistance to the Division of Radiation Control staff for various license renewal or amendment application reviews involving EnergySolutions LLC, Denison Mines (formerly International Uranium Corporation), and Uranium One Utah Inc. (formerly Plateau Resources Inc.).

Fiscal Year	Consultant Hours
2007 (07/01/2006 - 06/30/2007)	2041
2008 (07/01/2007 - 06/30/2008)	1825
2009 (07/01/2008 - 06/30/2009)	552
2010 (07/01/2009 - 06/30/2010)	1258
2011 (07/01/2010 - 06/30/2011)	167

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.

**CHARLIE BISHOP**

EDUCATION:

B.S. Degree in Geological Engineering, 1986, University of Utah.  
Pursued advanced studies in Geology and Geological Engineering. Major areas of study included advanced math, geophysics, mining methods, and ground water hydrology.  
Continuing Education at University of Utah:

Introduction to Groundwater Modeling, 1994; Advanced Topics in Hydrogeology, 1992; Geodynamics of Basins, 1991; Oil and Gas Reservoir Engineering, 1991; Computer Modeling of Groundwater Flow, 1990; Engineering Aspect of Groundwater Flow, 1989; Aqueous Geochemistry, 1989.

**RELATED WORK EXPERIENCE:**

Utah Geological Survey, Economic Program, from 1987-1994, alternative energies specialist and mineral commodities geologist. Conducted investigations of Tar Sand, Oil shale, and Coal Bed Methane resources within the State of Utah. Compiled mineral occurrence data in support of mineral occurrence map series. Participated in various phases of resource assessments, and investigations. Utah Geological Survey, Applied Program, 1994-1997, geologist conducting hydrological, hydrogeological, geophysical, and geologic hazard investigations. Assessed site suitability for waste disposal, determined aquifer parameters, evaluated ground-water resources, defined drinking water source protection areas, and evaluated radon potential. Utah Geological Survey, Environmental Sciences Program, 1997-2007, staff hydrogeologist performing hydrological and hydrogeological research and investigations. Evaluated existing ground-water flow studies, and computer models. Performed hydrogeologic studies to analysis ground-water flow and define ground-water flow systems; cumulating in the development of predictive ground-water flow and transport models. Conducted and directed resource evaluations, well sites suitability studies, ground-water development, and wellhead protection projects. Designed and conducted aquifer tests, ground-water monitoring and remediation systems, and well data analysis. Installed, and maintained data logging systems to measure water levels. Sampled ground-water and evaluating analytical data during water quality investigations. Division of Radiation Control, Geotechnical Program, 2007-Present, hydrogeologist conducting permitting and compliance actions at the EnergySolutions' Clive facility.

**SHORT COURSES:**

Environmental Remediation Technologies, 2010; Radiation Safety – Overview for Environmental Professionals, 2010; Introductory Health Physics; (H-177), 2009; Low-Cost Remediation Strategies for Contaminated Soil and Ground Water, 2009; Basic Inspector Training Course (CST109), 2008; Principles of Ground Water Flow, Transport, and Remediation, 2008; Advanced Transport and Bioremediation Modeling with GMS, 2004, Introduction to Groundwater modeling, 2000; Sequence Stratigraphic Concepts Applied, 1993, Geostatistics and Multivariate Data Analysis, 1990; Soils as a Tool for Applied Quaternary Geology, 1990; Dating Methods Applicable to Quaternary Geologic Studies, 1989.

**PROFESSIONAL AFFILIATIONS:**

National Ground Water Association, Association of Ground Water Scientists and Engineers, American Geophysical Union, Water Resource Research.

**PROFESSIONAL REGISTRATION:**

Professional Geologist, licensed through State of Utah.

**CHRISTINE KEYSER**

**EDUCATION:**

University of Phoenix, Salt Lake City, UT  
M. S., Mental Health Counseling (LPC), 2011  
University of Utah, Salt Lake City, UT  
M. S., Communication, 1999  
University of Utah, Salt Lake City, UT  
B. A., Speech Communication, 1996

RELATED WORK EXPERIENCE:

2008 to present: Division of Radiation Control, Utah Department of Environmental Quality, SLC, UT; Position: Communication Specialist

2005--2008: Office of Consumer Services, Utah Department of Commerce, SLC, UT; Position: Communication Specialist

2009 to present: Certified Life Coach, Private Practice, Draper, Utah..

1997 to Present: University of Utah, Salt Lake City, UT; Position: Adjunct Faculty, Communication Department.

1999--2010: The Villard Group, Lake Tahoe, NV; Position: Senior Consultant and Trainer

2003--2005: Utah Department of Commerce, Salt Lake City, UT; Position: Public Information Officer

1999--2002: Salt Lake Community College, Salt Lake City, UT; Position: Adjunct Faculty, Communication Department

2000--2002: American Society for Training and Development (ASTD) - Utah Chapter; Position: Vice President of Communication

1990--1998: Philip G. McCarthy, Financial Services, Salt Lake City, UT; Position: Office Manager

CERTIFICATIONS:

2008 - Radon & Radon Decay Product Measurement Course with CERTI (Center of Environmental Research and Technology)

2009 – Radon Mitigation Technology Course with CERTI

2010 – Radon: Train the Speaker with CERTI

PROFESSIONAL AFFILIATIONS:

CRCPD (Conference of Radiation Control Program Directors)

AARST (American Association of Radon Scientists and Technologists)

NEHA (National Environmental Health Association)

**RUSTY LUNDBERG**

EDUCATION:

University of Utah, Salt Lake City, Utah (1979); B.S. in Meteorology

Graduate of the inaugural class of the Great Basin Public Health Leadership Institute (GBPHLI) (March 2005)

Various professional/environmental seminars and workshops sponsored by governmental and private agencies (1980 to present).

RELATED WORK EXPERIENCE:

Utah Department of Environmental Quality - (July 1991 to Present), Created from the Department of Health in 1991); Utah Department of Health - (July 1985 to July 1991) Bureau of Solid and Hazardous Waste

**Division of Radiation Control** (July 2010 to Present); Appointed by the executive director of the Department of Environmental Quality (DEQ) as the director of the Division of Radiation Control.

**Executive Director's Office – Energy and Sustainability Group** (August 2008 to June 2010)

**Division of Solid and Hazardous Waste** (July 1985 to August 2008); Solid Waste Branch Manager (Environmental Program Manager II) - (July 1992 to present), Solid Waste/Planning Section Manager (Environmental Program Manager I) - (Oct. 1987 to July 1992), Environmental Health Scientist - (July 1985 to Oct. 1987)

GEOKINETICS, INC. (April 1980 to Sept. 1984); Environmental Manager, Environmental Engineer/Meteorologist

PROFESSIONAL AFFILIATIONS:

Association of State and Territorial Solid Waste Management Officials; Task Force Chair – Hazardous Waste Subcommittee  
Solid Waste Association of North America  
National Association of Clean Air Agencies  
National Association of Environmental Professionals  
Rocky Mountain Oil and Gas Association Environmental Affairs Subcommittee, (Subcommittee of the Committee on Oil Shale)  
Environmental Committee – Utah Petroleum Association  
Member of Chi Epsilon Pi – University of Utah Chapter, Meteorology Honor Society

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 qualification requirements.

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

The Utah Radiation Control Training Qualification Form was updated to include four courses. The training courses are Basic Health Physics Technology (H-122), NRC Materials Control & Security Systems & Principles (S-201), Multi-Agency Radiation Safety and Site Investigation (H-121), and RESRAD Training Workshop, (H-410). Depending on an employee's position by program activity, a specific course may be required, not required, or recommended training.

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

Mario Bettolo (March 24, 2011), Dane Finerfrock (June 30, 2010), Susan Giddings (March 21, 2011), David Hogge (June 30, 2009), Raymond Nelson, (December 15, 2010), and David Neville (June 13, 2008).

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.

1) Health Physicist, Radioactive Materials: Vacant since March 28, 2011.

Qualified applicants were interviewed the first week of June. As of June 20, 2011, professional references for the leading applicants were being checked. An employment offer was extended and accepted before the IMPEP review began. On August 15, 2011, the health physicist called to say that she had received another job offer and was going to accept that offer. Recruitment is underway to fill this vacancy.

2) Health Physicist, Radioactive Materials: Vacant since December 16, 2010.

Qualified applicants were interviewed the first week of June. As of June 20, 2011, professional references for the leading applicants were being checked. On July 19, 2011, a job offer was extended to a qualified applicant. Salary negotiations ensued and the offer was declined on July 27, 2011. Recruitment is underway to fill this vacancy.

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.

In accordance with Utah Code Title 19, Chapter 3, Section 103, there is an oversight board. The Radiation Control Board consists of 13 members, appointed by the Governor with the consent of the Utah Senate. One member is the Department of Environmental Quality Executive Director. Upon accepting an appointment to the Board and pursuant to Utah Public Officers' and Employees' Ethics Act (Utah Code Title 67, Chapter 16, Sections 1 - 14), a member must complete a Disclosure Statement.

On March 3, 1995, the Board adopted a Conflict of Interest Policy. Radiation Control 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 should 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.

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.

There are no radioactive material licensees within the State of Utah that have an inspection frequency less than called for 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
06/18/2007 - 12-31/2007	18	2
01/01/2008 - 12/31/2008	26	1
01/01/2009 - 12/31/2009	32	4
01/01/2010 - 12/31/2010	22	0
01/01/2011 - 06/07/2011	16	1

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
WeldSonix, Inc	UT 2300530	1	07/27/10	01/23/11	Attempted 01/20/11 Field site 01/26/11	3 days	06/16/11
IHC Health Services Inc. dba Riverton Hospital	UT 1800521	1	10/09/08*	10/09/09 NRC Date	12/17/09	69 days	01/19/10
Protechnics, A Division of Core Laboratories, LP	UT 2400302	3	07/05/05	04/04/09	04/15/09	11 days	05/27/09
MISTRAS Group, Inc.	UT 0600485	1	02/01/07	05/01/08	11/19/08 Field Inspection 12/01/2008	202 days	03/17/09
Davis Hospital & Medical Center, Inc.	UT 0600095	3	08/27/04	05/23/08	11/17/08	178 days	06/03/09

\* The licensee was unsure of the amount of time that would be required for processing a new license application. The license application was submitted prior to completing construction of the facility. Although the license was issued on October 9, 2008, the facility did not open for business until November 2, 2009, which was more than a year after the license was issued. The licensee was inspected on December 17, 2009, which was 69 days past the NRC's priority for initial inspections; however, no radioactive material was possessed from October 9, 2008 through November 2, 2009. The licensee was inspected within 1.5 months after opening.

- 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.

At present, there are no inspections overdue per IMC 2800.

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
2007	16	3
2008	17	5
2009	16	3
2010	19	7
2011	12	4

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 DRC's written inspection procedures were modified as follows:

- The "Medical Event" inspection procedure was modified to delineate a specific time for a reactive inspection to be conducted within for a medical event involving therapy.
  - The section entitled, "Public Disclosure of Enforcement Actions," was modified to clarify when reports regarding enforcement actions would be provided to the Utah Radiation Control Board.
16. Prepare a table showing the number and types of supervisory accompaniments made during the review period. Include:

Inspector	Supervisor	License Category	Date
David Hogge	Craig Jones	7-b.1	12/17/2007
David Hogge	Craig Jones	3-d.2	11/19/2008
David Hogge	Craig Jones	3-d.2	12/01/2008
Philip Griffin	Craig Jones	3-l.7	09/05/2007
Philip Griffin	Craig Jones	3-e	11/05/2008
Philip Griffin	Craig Jones	7-b.2B	09/17/2009
Philip Griffin	Craig Jones	3-m.2	09/23/2010
Mario Bettolo	Craig Jones	3-l.1	12/19/2007
Mario Bettolo	Craig Jones	3-l.1	10/22/2008
Mario Bettolo	Craig Jones	7-c	10/23 & 24/2009

Mario Bettolo	Craig Jones	3-l.2A	11/01/2010
Gwyn Galloway	Craig Jones	7-b.1C	12/11/2007
Gwyn Galloway	Craig Jones	7-c	11/18/2008
Gwyn Galloway	Craig Jones	7-b.1A	10/27/2009
Gwyn Galloway	Craig Jones	4-c	11/16/2010

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. Our instrument calibration records will be 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 21, 2011, the Division regulates 199 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  
 UT 1800510 – Cavanagh Services Group, Inc.

Major, Unusual, or Complex Licenses Amended  
 UT 1800001 – University of Utah Radiological Health Department  
 UT 2500081 – Brigham Young University  
 UT 1800102 – IHC Health Services, Inc. dba LDS Hospital  
 UT 2900149 – Weber State University  
 UT 0300159 – Utah State University  
 UT 1800225 – Cardinal Health Nuclear Pharmacy Services  
 UT 1800458 – University of Utah Radiological Health Department  
 UT 2700464 – Nuclear Apothecary, Inc.  
 UT 1800494 – IHC Health Services, Inc. dba Intermountain Medical Center  
 UT 1800510 – Cavanagh Services Group, Inc.

Major, Unusual, or Complex Licenses Terminated

UT 0600189 – Harrison R. Cooper Systems, Inc.

UT 1800416 – Ballard Medical Products, a Wholly Owned Subsidiary of Kimberly-Clark

Major, Unusual, or Complex Licenses Decommissioned

None

Major, Unusual, or Complex Licenses with a Bankruptcy Notification

None

Major, Unusual, or Complex Licenses Renewed

UT 1800001 – University of Utah Radiological Health Department

UT 1800074 – Isomedix Operations, Inc.

UT 2500081 – Brigham Young University

UT 1800102 – IHC Health Services, Inc. dba LDS Hospital

UT 1800145 – University of Utah Radiological Health Department

UT 2900149 – Weber State University

UT 0300159 – Utah State University

UT 1800225 – Cardinal Health Nuclear Pharmacy Services

UT 2700464 – Nuclear Apothecary, Inc.

UT 1800458 – University of Utah Radiological Health Department

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

On October 14, 2009, the Utah Radiation Control Board issued an exemption to all Utah medical use licensees during times of molybdenum-99 shortages in the United States. The intent of the exemption was to assure that the available technetium-99m was used for patient administrations. This exemption from the rules in R313-22-75(9) and R313-32 [incorporating 10 CFR 35.60(b) by reference] was the Utah equivalent of the NRC's exemption for all 10 CFR Part 35 licensees issued on July 16, 2009. While this exemption was granted to all Utah medical licensees, the Division is unaware of any instances where a licensee applied the exemption to their use of technetium-99m.

During the period of June 18, 2007 to June 7, 2011, the radiation control program advised 22 licensees that their renewal application would be treated as if it had been filed in a timely manner. This was generally limited to circumstances where the licensee could justify that there would be an adverse consequence if the Executive Secretary decided to suspend licensed operations until program staff processed the renewal.

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

A policy on the maximum possession limits for all licenses was added to the Division's "Technical Procedures for License Review."

In preparation for the 2011 IMPEP review, a number of style and format changes for the licensing procedures were identified during the Division's self-audit. The Division plans to address and approve these corrections soon after the IMPEP review.

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.

UT 2400425 – Rocky Mountain Phoenix Surveys, Inc.  
UT 2900147 – McKay-Dee Hospital Center

The licensing review work for both licensees has been on-going for one year or more and the causes are similar for each licensee. The delays include poor quality or incomplete submissions from the applicant and there have been competing work priorities for the license reviewers. Additionally, the Division has identified instances when the licensee contacts have misunderstood what information is needed to be submitted to the Division in support of the license renewal.

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>
----------------------	------------------	--------------------------------	-------------------------

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.

There were no changes made to the procedures for responding to incidents and allegations.

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.

Under the provisions of the Utah Legislative Oversight and Sunset Act, *Utah Code Annotated* (UCA) Section 63I-1, various state statutes are repealed unless the Legislature acts to reauthorize them by changing the respective repeal dates. Currently, the Radiation Control Act (UCA 19-3) sunsets on July 1, 2012 [see UCA 63I-1-219(2)] unless the Legislature acts to reauthorize it for a period determined at their discretion (but not more than 10 years). The current repeal date was set by the Legislature during the 2002 General Session (H.B. 246).

On May 18, 2011, the Division management was scheduled to meet with the Natural Resources, Agriculture, and Environment Interim Committee of the Utah State Legislature to present evidence on why the Radiation Control Act should be reauthorized, and to request that it be reauthorized for a period of 10 years. The Interim Committee was unable to meet with the Division management. This meeting will be rescheduled for either July or September 2011.

Legislation that affects the radiation control program:

- \* UCA 19-1: Environmental Quality Code - Amended during the review period
- \* UCA 19-3: Radiation Control Act – Amended during the review period
- \* UCA 19-5: Water Quality Act – Amended during the review period
- \* UCA 19-6-101: Solid and Hazardous Waste Act – Amended during the review period

- \* UCA 19-7: Environmental Self-Evaluation Act
- \* UCA 19-10: Environmental Institutional Control Act
- \* UCA 52-4: Open and Public Meetings – Amended during the review period
- \* UCA 63G-2: Government Records Access and Management Act – Amended during the review period
- \* UCA 63G-3: Utah Administrative Rulemaking Act – Amended during the review period
- \* UCA 63G-4: Administrative Procedures Act – Amended during the review period
- \* UCA 67-16: Utah Public Officers' & Employees' Ethics Act

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* 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 *Bulletin*. (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.

In Governor Gary R. Herbert's State of the State Address on January 26, 2011, the Governor stated that he asked each member of his Cabinet to "review existing business regulations and determine which could be kept, which should be modified, and which will be eliminated." As a result, the Division staff completed a review of the Radiation Control Act (UCA 19-3) and Administrative Rules (R313) to determine which rules should be kept, modified, or eliminated. The results of the review and the justifications and decisions reached regarding each rule was submitted to the Department of Environmental Quality executive management team by May 1, 2011. The Department submitted its report to the Governor's Office by June 1, 2011. The Governor's Office is expected to release its report on the review of all existing business regulations by July 1, 2011.

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.

The Utah State Regulation Status sheet, dated April 5, 2011, was reviewed and the information in the column titled “Outgoing Package” is correct. At this time, the Division is current with all NRC Regulations due for state adoption. There is one outstanding issue that was discussed in a letter dated February 23, 2011 (ML 110250295). This issue will be addressed during a future rulemaking action.

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 of Radiation Control 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&amp;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>
---	---	--------------------------------	------------------------	---------------------------

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

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 chart at 2(c) above.
3. See response to question 3 in the "Common Performance Indicators" above.
4. None. However, three new positions have been created in support of a new organizational structure to be implemented early in state FY 2012.



- 5. Not applicable.
- 6. See response to question 6 in the "Common Performance Indicators" above.
- 7. Not applicable.
- 8. No vacancies in existing positions. As noted in response 31. 3. above, three new positions (2 Engineers and 1 Groundwater Geologist) will be created in early state FY 2012. As of Sept 1, 2011, 2 Engineers and 1 Hydrogeologist have accepted job offers with the DRC and will start on September 19, 2011.
- 9. Yes, see answer to number 9 in the "Common Performance Indicators" 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 answer to number 10 in the "Common Performance Indicators" 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" 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
Jule Fausto	John Hultquist	GSA/4-a	07/01/2009
Jule Fausto	John Hultquist	GSA/4-a	12/01/2008

Kevin Carney	John Hultquist	2-b	05/28-29/2008
Kevin Carney	John Hultquist	4-a	10/29/2009
Kevin Carney	John Hultquist	2-b	06/08-09/2010
Boyd Imai	John Hultquist	4-a	09/24/2008
Boyd Imai	John Hultquist	4-a	10/23 & 24/2009
Boyd Imai	John Hultquist	4-a	09/01/2010
Ryan Johnson	John Hultquist	2-b	05/28-29/2008
Ryan Johnson	John Hultquist	2-b	12/02/2009
Ryan Johnson	John Hultquist	4-a	03/16/2010
Raymond Nelson	John Hultquist	4-a	03/02/2009
Charlie Bishop	Loren Morton	4-a	12/10/2008
Phillip Goble	Loren Morton	2-b	10/08/2009
David Esser	Loren Morton	4-a	09/14/2010

\* GSA means Generator Site Access

17. See response to question 17 in the "Common Performance Indicators" above.

#### Technical Quality of Licensing Actions - Questions 18-22

18. One, *EnergySolutions*, license number UT2300249.
19. The *EnergySolutions* license renewal was started July of 2003 and it was signed on January 25, 2008. In addition, several major amendments were completed during the review period including disposal of large quantities of Depleted Uranium (DU) Performance Assessment due to rule making by the Radiation Control Board in 2010.
20. The Utah Radiation Control Board amended Rule R313-25-8 "Technical Analysis" regarding the disposal of large quantities of DU in 2010. In addition, the Board issued in April 2010, a position statement regarding the blending of low-level radioactive waste. (Available online at [http://www.radiationcontrol.utah.gov/Board/position\\_downblending.pdf](http://www.radiationcontrol.utah.gov/Board/position_downblending.pdf).)
21. A new written procedure regarding low-level waste license reviews was created that follows the peer review process used by the radioactive materials section. This procedure was developed as part of the Lean Six Sigma process the Division started in 2010. The procedure is currently being inserted into the Administrative Procedures document and will be implemented when a reorganization of the Division is complete.
22. None

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

23. On December 22, 2010, *EnergySolutions* reported an explosion/fire had occurred on the Class A Waste Disposal Cell. A review of supporting documentation and information from employees involved confirmed that an explosion had taken place during routine disposal operations. The incident involved a drum of sulfur that was in the process of being crushed. There was an explosion with a fire ball approaching a 10 foot diameter. No one was injured. The backhoe operator handling the drum of waste was in a closed

cab and wearing a respirator. Based on the waste tracking manifest, the radioactive material was identified as Uranium-natural. The quantity in the drum did not exceed the threshold in Utah Administrative Code R313-19-50(i). We do not believe that the provisions of R313-19-50(ii), regarding container integrity, apply because the drum was in the process of being crushed as part of the process to place waste into the disposal cell. Based on the incident circumstances, the Division determined the incident was not subject to being reported.

24. See response to question 24 in the "Common Performance Indicators" 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 2(c) above.
3. See response to question 3 in the "Common Performance Indicators" above.
4. None. However, three new positions have been created in support of a new organizational structure to be implemented early in state FY 2012.

See item 4 under Low Level Waste Section "Non Common Performance Indicator" above. In addition, all Uranium Mill and Low Level Waste radiation safety staff have completed the NRC Fuel Cycle Facilities Directed Self-Study Course (f102S) in 2008.

5. None
6. See response to question 6 in the "Common Performance Indicators" above.
7. None
8. No vacancies in existing positions. As noted in response 31. 3. above, three new positions (2 Engineers and 1 Groundwater Geologist) will be created in early state FY 2012. As of Sept 1, 2011, 2 Engineers and 1 Hydrogeologist have accepted job offers with the DRC and will start on September 19, 2011.

See item 8 above under Low Level Waste Program (2 Engineers and 1 Groundwater Geologist). These will be new positions within the next 6 months.

9. Yes, see answer to number 9 in the "Common Performance Indicators" above.

##### Status of Materials Inspection Program - Questions 10-14

10. 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)
Denison Mines	UT 1900479	2-b	(more frequent)
Uranium One Utah, 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 Denison Mines (active mill), two modules for Uranium One Utah, 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.

Technical Quality of Inspections - Questions 15-17

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

Technical Quality of Licensing Actions - Questions 18-22

- 18. As of June 2011, 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)
Denison Mines	UT 1900479	2-b	(more frequent)
Uranium One Utah, Inc.	UT 0900480	2-b	(more frequent)
- 19. The Denison Mines license renewal application was submitted in February of 2007 and the review of the application has continued through the IMPEP review period. The Draft License, Safety Evaluation Report and Statement of Basis are scheduled to be available for public comment in September 2011.
- 20. None
- 21. See response to question 21 in the LLW program "Non Common Performance Indicator" above.
- 22. Denison Mines UT 1900479 – The licensee has asked the Division to prioritize other license and permitting actions over the last few years. In addition, the licensee requested a new cover design which they wanted approved as part of the license renewal (LA)

process. However, due to incomplete submissions of information, the Division has moved forward with the LA and is now ready to provide a draft license and safety evaluation report. These documents are scheduled to be available for public comment in July 2011.

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

- 23. None.
- 24. See response to question 24 in the "Common Performance Indicators" above.

## 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   | • Documented training plan, if applicable  |
| • Statutes affecting the regulatory authority of the State program  | • Records of results of supervisory accompaniments of inspectors   |
| • Standard license conditions                                       | • Emergency plan and communications list   |
| • Technical procedures for licensing, model licenses, review guides | • Procedures for investigating allegations   |
| • SS&D review procedures, guides, and standards                     | • Procedures for investigating incidents   |
| • Instrument calibration records                                    | • Enforcement procedures, including procedures for escalated enforcement, severity levels, civil penalties (as applicable) |
| • Inspection procedures and guides                                  | • Job descriptions   |
| • Inspection report forms   |  |