



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 24, 2003

Dianne R. Nielson, Ph.D.
Executive Director
Department of Environmental Quality
168 North 1950 West
Salt Lake City, UT 84116

Dear Dr. Nielson:

The Nuclear Regulatory Commission (NRC) uses the Integrated Materials Performance Evaluation Program (IMPEP) in the evaluation of Agreement State programs. Enclosed for your review is the draft IMPEP report which documents the results of the Agreement State review held in your Department on June 23 -27, 2003. I was the team leader for the Utah review. The review team's preliminary findings were discussed with you and Mr. Sinclair, Director, Division of Radiation Control and his Section managers on the last day of the review. The review team's proposed recommendations are that the Utah Agreement State program be found adequate to protect public health and safety and compatible with NRC's program.

NRC conducts periodic reviews of Agreement State programs to ensure that public health and safety are adequately protected from the hazards associated with the use of radioactive materials and that Agreement State programs are compatible with NRC's program. The process, titled IMPEP, employs a team of NRC and Agreement State staff to assess both Agreement State and NRC Regional Office radioactive materials licensing and inspection programs. All reviews use common criteria in the assessment and place primary emphasis on performance. Two additional areas have been identified as non-common performance indicators and are also addressed in the assessment. The final determination of adequacy and compatibility of each Agreement State program, based on the review team's report, will be made by a Management Review Board (MRB) composed of NRC managers and an Agreement State program manager who serves as a liaison to the MRB.

In accordance with procedures for implementation of IMPEP, we are providing you with a copy of the draft team report for review prior to submitting the report to the MRB. We welcome your comments on the draft report. We request comments within four weeks from your receipt of this letter. This schedule will permit the issuance of the final report in a timely manner that will be responsive to your needs.

The team will review the response, make any necessary changes to the report and issue it to the MRB as a proposed final report. Our preliminary scheduling places the Utah MRB meeting in the week of September 8, 2003. We will coordinate with you to establish the date for the MRB review of the Utah report and will provide invitational travel for you or your designee to attend. NRC has video conferencing capability if it is more convenient for the State to participate through this medium. Please contact me if you desire to establish a video conference for the meeting.

Dianne R. Nielson, Ph.D.

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If you have any questions regarding the enclosed report, please contact me at 404-562-4704.

Sincerely,

/RA/

Richard L. Woodruff
Regional Agreement State Officer

Enclosure: As stated

cc w/encl:
William J. Sinclair, Director
Division of Radiation Control
Department of Environmental Quality
168 North 1950 West
Salt Lake City, UT 84116

Distribution w/encl:
DIR RF
DCD (SP01)
J. Piccone, STP
K. Schneider, STP
C. Miller, NMSS
R. Struckmeyer, NMSS
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S. Treby, OGC
J. Lieberman, OGC
Utah File

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF UTAH AGREEMENT STATE PROGRAM

June 22-27, 2003

DRAFT REPORT

U.S. Nuclear Regulatory Commission

1.0 INTRODUCTION

This report presents the results of the review of the Utah radiation control program. The review was conducted during the period June 23-27, 2003 by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of Maine. Review team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of a Final General Statement of Policy," published in the Federal Register on October 16, 1997, and the November 5, 1999, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period November 20, 1998, to June 27, 2003 were discussed with Utah management on June 27, 2003.

[A paragraph on the results of the Management Review Board (MRB) meeting will be included here in the final report.]

The Utah Agreement State program is administered by the Division of Radiation Control (the Division) located in the Department of Environmental Quality (the Department). Organization charts for the Division and Department are included as Appendix B. The Utah program regulates approximately 200 specific licenses authorizing agreement materials and a low-level radioactive waste site. The review focused on the materials program as it is carried out under the Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the State of Utah.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the Division on April 15, 2003. The Division provided a response to the questionnaire on June 2, 2003, and a corrected copy of the response was provided electronically on July 9, 2003, following the review. A copy of the corrected questionnaire response may be found on NRC's Agencywide Document Access and Management Systems using the Accession Number ML031910180.

The review team's general approach for conduct of this review consisted of: (1) examination of Utah's response to the questionnaire; (2) review of applicable Utah statutes and regulations; (3) analysis of quantitative information from the radiation control program licensing and inspection database; (4) technical review of selected licensing and inspection actions; (5) field accompaniments of three Utah inspectors; and (6) interviews with staff and management to answer questions or clarify issues. The review team evaluated the information that it gathered against the IMPEP criteria for each common and applicable non-common performance indicators and made a preliminary assessment of the Utah Agreement State program's performance.

Section 2 below discusses the State's actions in response to recommendations made following the previous IMPEP review and the team's conclusions regarding close-out of the recommendations. Results of the current review for the IMPEP common performance indicators are presented in Section 3. Section 4 discusses results of the applicable non-common performance indicators, and Section 5 summarizes the review team's findings and recommendations. Recommendations made by the review team are comments that relate directly to program performance by the State. A response is requested from the State to all recommendations in the final report.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on November 20, 1998, one recommendation and one suggestion were made and transmitted to Dianne R. Nielson, Ph.D., Executive Director, Department of Environmental Quality, on February 9, 1999. The team determined that the State considered the suggestion and took appropriate action. The team's review of the current status of the recommendation is as follows:

1. The review team recommends that the State continue in their ongoing efforts to meet the reciprocity inspection frequencies outlined in NRC Inspection Manual Chapter (IMC) 1220.

Current status: The Division has implemented a system for tracking licensees working in the State under reciprocity. The Division has met or exceeded the reciprocity inspection frequencies for each year of the review period. This recommendation is closed.

3.0 COMMON PERFORMANCE INDICATORS

IMPEP identifies five common performance indicators to be used in reviewing both NRC Regional and Agreement State programs. These indicators are: (1) Technical Staffing and Training; (2) Status of Materials Inspection Program; (3) Technical Quality of Inspections; (4) Technical Quality of Licensing Actions; and (5) Response to Incidents and Allegations.

3.1 Technical Staffing and Training

Issues central to the evaluation of this indicator include the Division's staffing level and staff turnover, as well as the technical qualifications and training histories of the staff. To evaluate these issues, the review team examined the Division's questionnaire response relative to this indicator, interviewed Division management and staff, reviewed job descriptions and training records, and considered any possible workload backlogs.

The Division consists of the Division Director, four administrative staff, including the Support Services Coordinator (SSC), and two technical Sections; the Radioactive Materials and X-Ray Section (the Materials Section), and the Waste and Environmental Section. The Radioactive Materials and X-Ray Section includes a Section Manager and eight full-time Health Physicist positions, four in the radioactive materials program and four in the X-Ray program. The Waste and Environmental Section consists of a Section Manager and eleven full-time positions in five program areas; Indoor Radon, Uranium Mills, Waste Isolation Pilot Project (WIPP) Transportation Project, Generator Site Access, and the Envirocare Low-Level Radioactive Waste site. Details of the Waste and Environmental Section staffing is discussed further under Section 4.3.1.

Technical staffing in the Materials Section has been stable since the previous review and the review team believes that this staffing level is adequate. One staff member from the materials program left the program on June 20, 2003. The review team was informed that the paperwork needed to fill this position had been initiated and approved at the Department level.

The Division has a documented training and qualification program in place for staff which is based on the NRC/Organization of Agreement States Joint Working Group report. Adequate qualification is determined through a combination of education and experience, formal classroom training, and on-the-job training. Staff members are required to have a bachelor's degree or equivalent experience in the physical sciences. The Division maintains a training matrix, listing the "required courses" and "recommended courses" for each staff position by program activity. These staff positions are: Health Physicist, Low-Level Waste Inspector, Radiological Transportation & Safety Specialist, Engineer, Hydrologist, and Section Manager.

Records show that Materials Section staff have all received their required and recommended courses for their positions, and are very familiar with Utah regulations, policies, and procedures.

During team interviews with the staff and the Division Radiation Safety Officer (RSO), the RSO discussed plans to conduct an in-house refresher course on some new survey equipment. The RSO agreed that the course should include refresher training for all technical staff on the capabilities and use of the other radiological instrumentation in the Division. This training will be documented in training files.

The Utah Radiation Control Board is appointed by the Governor, with consent of the Senate, and guides development of Radiation Control policy and regulations. The Board meets at least 10 times per year, and the minutes of the meetings are posted on the web site. All members are subject to the Utah Public Officer's and Employees' Ethics Act.

Based on the IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

3.2 Status of Materials Inspection Program

The team focused on five factors in reviewing this indicator: inspection frequency, overdue inspections, initial inspection of new licensees, the timely dispatch of inspection findings to licensees, and the performance of reciprocity inspections. The evaluation is based on the Division's questionnaire response relative to this indicator, data gathered independently from the Division's licensing and inspection data tracking system, the examination of completed licensing and inspection casework, and interviews with managers and staff.

The staff uses a custom database management system for their tracking system. The data is maintained on a network and is available to all staff. This allows them to project the next inspection due date and to sort the inspection data as needed. The staff updates the information on this system continuously to keep it up-to-date.

The team's review of the Division's inspection priorities verified that inspection intervals for various types of material licenses are generally at least as frequent as, or more frequent than, similar license types listed in NRC IMC 2800. Thirty-seven of the 78 license categories established by the Division are inspected more frequently than similar license types listed in IMC 2800. Two categories, Instrument Calibration (< 100Ci) and Strontium-90 Eye Applicator, had inspection intervals greater than the interval outlined in IMC 2800. However, the Division has no licensees in these categories.

In their response to the questionnaire, the Division indicated that no inspections were overdue by more than 25% of the NRC frequency. This information was verified by review of the inspection data provided to the team. The Division performs approximately 80 routine inspections annually. The team determined that only four core routine inspections were conducted overdue during the review period. The team also determined that, in those instances where the licensee was inspected past the due date, there was clear documentation that showed that an inspection was attempted by the due date or other extenuating circumstances existed. In all cases where inspections were conducted past the due date, Division management was fully aware of the circumstances.

With respect to initial inspections of new licensees, the review team noted that the Division conducted initial inspections in accordance with IMC 2800 guidelines. There were 38 new licenses issued during the review period.

The timeliness of the issuance of inspection findings was evaluated during the inspection casework review. There were no instances identified where inspection correspondence was not sent within 30 days after the inspection. The team also determined that licensee responses were received and responded to in a timely manner.

During the review period, the Division granted 85 reciprocity permits, of which, 83 permits were core licensees based on IMC 2800. The review team noted that the Division has adopted the criteria outlined in IMC 1220 as the Division's criteria for inspecting licensees working in Utah under reciprocity each time the NRC has changed the criteria during the review period. The team also determined that the current NRC criteria of inspecting 20 percent of candidate core licensees operating under reciprocity each year is the criteria currently being used by the Division. The team determined that the Division met or exceeded the IMC 1220 criteria for the entire review period.

The Division's custom database management system is programed to provide the staff with a "pop-up" window, each day upon logging in, that indicates who is working in the State under reciprocity during the next 7 day period. If there are no licensees working under reciprocity during that time period, the "pop-up" window indicates this as well. The system also tracks who had been in the State, when, where, and for how long. The team recommends that the Division's system for tracking licensees that are working in the State under reciprocity be considered a good practice.

Based on the IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

3.3 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed staff for 10 radioactive material inspections conducted during the review period. The casework included all inspectors and the Materials Section Manager. The casework covered inspections of various types including; panoramic irradiator, medical institutions, medical private practice, industrial radiography, well logging, nuclear pharmacy, academic broad scope, academic/medical broad scope, portable gauge, and reciprocity. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

Utah's inspection procedures are consistent with NRC procedures. Inspections are routinely unannounced. The review team noted that, of the 10 inspections evaluated, only one was announced, this inspection was an initial inspection.

Based on casework, the review team noted that routine inspections covered all aspects of the licensees' radiation programs. The team noted that the inspections are both compliance oriented and performance-based. Field notes have been developed to cover all types of inspections that are conducted by the Division. These field notes provide documentation for the scope of the licensees' program and cover all areas that need to be reviewed. The information contained in the field notes is comparable with NRC's Inspection Procedure 87100. The inspectors also include various performance-based inspection techniques, such as direct observation of licensed activities, demonstrations, interviews, etc., when appropriate. Team inspections were performed when appropriate and for training purposes.

The inspection findings are issued under the signature of the Division Director, after a review of the inspection report by a peer and the approval by the Materials Section Manager. Inspection findings are routinely sent to the licensee well within 30 days. Licensee responses are reviewed and replied to in a timely manner. The inspection files were found to be complete and in good order.

The Materials Section Manager has accompanied all four of the inspectors, who conduct inspections of radioactive material licensees, at least annually since the last review.

During the week of May 5, 2003, a review team member performed accompaniments of two of the Materials Section's four inspectors on separate inspections of licensed facilities (see Appendix C). The inspections were of a nuclear pharmacy, a medical institution, and a portable gauge licensee. During the accompaniments, inspectors demonstrated appropriate inspection skills and knowledge of the regulations. The inspectors were well prepared and thorough in the review of licensee programs. The technical performance of both inspectors was excellent. The inspections were adequate to assess radiological health and safety at the licensed facilities.

The Division has available a variety of portable instruments for routine confirmatory surveys and use in incidents and emergency conditions. The instruments are calibrated annually, or as needed. The calibrations are done by the Division RSO, using a one curie cesium-137 source in a J. L. Shepherd calibrator and an electronic pulser for exposure rate instruments. Instruments used for contamination surveys are calibrated with a variety of alpha and beta sources.

Based on the IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

3.4 Technical Quality of Licensing Actions

The review team reviewed the response to the questionnaire, completed licensing casework and interviewed license reviewers for 27 specific licenses to assess this indicator. Licensing actions were evaluated for completeness, consistency, proper isotopes and quantities used, qualifications of authorized users, adequate facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions. Licenses were evaluated for overall technical quality including accuracy, appropriateness of the license, its

conditions, and tie-down conditions. Casework was evaluated for timeliness, adherence to good health physics practices, reference to appropriate regulations, documentation of safety evaluation reports, product certifications or other supporting documentation, consideration of enforcement history on renewals, pre-licensing visits, peer or supervisory review as indicated, and proper signature authority. The files were checked for retention of necessary documents and supporting data.

The licensing actions reviewed included the following types of licenses: academic/medical broad scope; academic broad scope; pool irradiator; industrial radiography; large medical; small medical; research and development; manufacturing & distribution, brachytherapy/HDR, storage only, portable gauge; and fixed gauge. Licensing actions reviewed included two new licenses, nine amendments, four renewals, four terminations, two bankruptcies, and verified the status of six formerly terminated sites, which were handed over to the Division by the NRC in 2001. A list of these licenses with case-specific comments may be found in Appendix D.

The review team found that the SSC logs all licensing actions into the Division's radioactive materials database. The SSC then reviews the licensing action and distributes the action to the appropriate license reviewer, which is automatically assigned by the database.

The review team noted that the Division developed a new database with significant input by the Materials Section. This database allows the Division to efficiently assign and track all actions throughout the cycle of the license action.

The review team noted that each licensing action is thoroughly reviewed using a two phase process. A second qualified or senior reviewer reviews all actions before they are sent to the Materials Section Manager. The Materials Section Manager reviews all high priority actions before they are sent to the Executive Director of the Utah Radiation Control Board, or their designee, for issuance. In addition, complex cases are completed using a team of reviewers, including the Materials Section Manager, and often include frequent interactions with senior NRC reviewers. Furthermore, the Materials Section Manager reviews every tenth action and most complex actions. The Materials Section Manager's review includes the use of a checklist. The checklists generally follow the NUREG-1556 series, with the exception of the Volume 9, Medical Use of Byproduct Material.

The review team found that the licensing actions were thorough, complete, consistent, and of high quality, with health and safety issues properly addressed. Tie-down conditions are backed by information contained in the file, and are inspectable. Deficiency letters clearly state regulatory positions, are used at the proper time, and identify deficiencies in the licensees' documents. Terminated licensing actions are well documented, showing appropriate transfer and survey records. License files are complete and well organized. Applicable guidance documents are complete, well organized, available to reviewers, and appear to be followed. Safety and security issues for all uses of radioactive material are being addressed throughout the licensing process and/or through the use of license conditions, particularly in the safety and security of portable gauges.

The review team noted that license reviewers also work as inspectors. The review team identified several occasions when the results of an inspection were used in an effective manner to improve a license through either a licensing amendment or renewal. Similarly, license reviewers also mark items for follow-up during routine inspections of those licensees.

The review team found that in 2001, the NRC transferred six files to the Division for follow-up and eventual closure. The NRC terminated these sites before the State of Utah became an Agreement State. The Program accepted the challenge to assist the NRC in this extremely important project. The Division has dedicated sufficient time and resources to ensure the closure of the files, while continuing to protect radiological health and safety. The review team noted that these six files should be closed by the end of the year. The status of these may be found in Appendix D.

Based on the IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

3.5 Response to Incidents and Allegations

In evaluating the effectiveness of the Division's actions in responding to incidents, the review team examined the Division's responses to the questionnaire relative to this indicator, reviewed the incident reports for Utah in the Nuclear Material Events Database (NMED) against those contained in the Division files, and evaluated reports and supporting documentation for 13 incidents. A list of the incident casework examined with case-specific comments is included in Appendix E. The review team also reviewed the Division's response to 18 allegations involving radioactive material and the low-level radioactive (LLRW) waste site, including 6 allegations referred to the Division by the NRC during the review period.

The incidents selected for review included the following categories: lost/stolen material, leaking sources, contamination, loss of control, and damaged equipment. The Division has excellent written guidance for handling of incidents in their "Administrative Policy" manual. When notification of an incident is received, the appropriate Section Manager and the staff discuss what level of initial response is appropriate. The review team found that the Division's response to incidents was complete and comprehensive. Initial responses were prompt and well-coordinated, and the level of effort was commensurate with the health and safety significance. The Division dispatched inspectors for on-site investigations when appropriate, and took suitable enforcement and follow-up actions.

The review team identified 14 reportable incidents in NMED for Utah during the review period. The Division reports incidents that require immediate notification to the NRC within 24 hours of notification, and incidents that require notification to the NRC within 30 days at the end of each month. It was noted that the Division closes events in NMED as required. Lost and stolen material (i.e., portable gauges) are also closed out in NMED even if they have not yet been found. This issue was discussed with Sam Petijohn, the NRC NMED contact, who related that this is an acceptable practice if all information available to the State has been reported to NMED, and that the State can always reopen the case if the device is found.

In evaluating the effectiveness of Utah's actions responding to allegations, the review team examined the Division's questionnaire responses relative to this indicator. The casework for six allegations (one radioactive materials allegation and five LLRW waste site allegations) referred by the NRC was reviewed as well as the case work for an additional twelve materials allegations reported directly to the State.

After receiving an allegation, the Division evaluates each allegation and determines the proper level of response. The review of the casework files indicated that the Division took prompt and appropriate action in response to the concerns raised. All of the allegations reviewed were appropriately closed and appropriate parties were notified of the actions taken. There were no performance issues identified from the review of the casework documentation.

The Division has excellent written guidance for handling allegations in their "Administrative Policy" manual which was revised May 2003. However, from discussions and interviews with Section Managers and Division staff, it was apparent that one of the Section Managers and some of the technical staff are not thoroughly familiar with all of the elements of the Administrative Policy regarding allegations, and in particular the threshold of concerns to be reported as allegations. The review team recommends that additional training in the revised Administrative Policy regarding allegations be provided to all Division managers and technical staff, and to assure the policy is fully implemented.

The review team noted that the Department's Statute, "Government Records Access and Management Act (GRAMA)," requires that public documents be made available upon request with some exceptions. Allegation records are redacted to protect the privacy of the alleged. The State makes every effort to protect an alleged's identity, but it cannot be guaranteed. During the initial contact, the alleged is advised that their anonymity cannot be guaranteed.

Based on the IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Response to Incidents and Allegations, be found satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing Agreement State programs: (1) Legislation and Program Elements Required for Compatibility; (2) Sealed Source and Device Evaluation Program; (3) Low-Level Radioactive Waste Disposal Program; and (4) Uranium Recovery Program. Utah's Agreement currently does not include a uranium recovery program, and the Sealed Source and Device Program was returned to NRC on June 1, 1996. Accordingly, the review team did not evaluate the second and fourth indicators.

4.1 Legislation and Program Elements Required for Compatibility

4.1.1 Legislation

In addition to their response to the questionnaire, the Division provided the review team with the opportunity to review copies of legislation that affect the radiation control program. The current effective statutory authority is contained in the Utah Code Annotated, Title 19, Chapter 3, Title R313, Environmental Quality, Radiation Control. The Division of Radiation Control within the Department of Environmental Quality implements the radiation control program. A Radiation Control Board (the Board) is appointed by the Utah Governor and guides development of Radiation Control Policy and regulations in the State.

Statutory changes the Radiation Control Act were made by the 2002 General Session of the Utah Legislature. In summary, the changes were made to implement an amended Agreement for uranium recovery regulation; added three members to the Board for a total of 13; expanded the authority for the Board to make rules; authorized the Board to establish fees for uranium

mills and commercial waste facilities; and other administrative changes. The NRC reviewed the Utah application for an amendment to its Agreement for uranium milling and 11e.(2) byproduct material dated January 2, 2003, and provided comments dated June 27, 2003 (ML031810623).

4.1.2 Program Elements Required for Compatibility

The State's regulations for control of radiation are located in Title 19, Chapter 3, Title R313 of the Utah Code, and applies to all ionizing radiation. Utah requires a license for possession and use of all radioactive material including naturally occurring materials, such as radium, and accelerator-produced radionuclides.

The review team examined the State's administrative rulemaking process and found that the process takes 120 days after filing a draft administrative rule. Draft administrative rules are sent to the Board for permission to get public comments and to file the proposed rule. The draft rules are published in the State Bulletin. After a public comment period, the rule is returned to the Board for final approval. The State has the authority to issue legally binding requirements (e.g., license conditions) in lieu of regulations until compatible regulations become effective.

The review team evaluated the Division's responses to the questionnaire, reviewed the status of regulations required to be adopted by the State under the Commission's adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the Office of State and Tribal Program's (STP) State Regulation Status Data Sheet.

Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally binding requirements no later than three years after they become effective. The review team found that the Program currently has no overdue NRC amendments.

The State will need to address the following three regulations in upcoming rulemakings or by adopting alternate legally binding requirements:

- "Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material," 10 CFR Parts 30, 31, and 32 amendments (65 FR 79162) that became effective February 16, 2001.
- "Revision of the Skin Dose Limit," 10 CFR Part 20 amendment (67 FR 16298) that became effective April 5, 2002.
- "Medical Use of Byproduct Material," 10 CFR 20, 32, and 35 amendments (67 FR 20249) that became effective April 24, 2002.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, be found satisfactory.

4.2 Sealed Source and Device (SS&D) Evaluation Program

Effective June 1, 1996, NRC reassumed regulatory authority for sealed source and device evaluations in Utah, in response to a request from the State to relinquish that authority. No sealed source or device evaluations have been performed in Utah since that relinquishment. Accordingly, the review team did not evaluate this indicator.

4.3 Low-Level Radioactive Waste Disposal Program

Envirocare of Utah, Inc., is a commercial shallow-land Low-Level Radioactive Waste (LLRW) disposal facility located 80 miles west of Salt Lake City in Toole County. The State of Utah LLRW Disposal Program is administered by the Division. Regulatory authority is derived from the Radiation Control Act of Utah Code Title 19 Chapter 3, and the Radiation Control Rules promulgated in Utah Administrative Code, R313.

Envirocare is licensed by the Division under license number UT 2300249 which expires on October 22, 2003, and is currently in timely renewal. The license authorizes Envirocare to receive, store, possess, and dispose of naturally occurring radioactive materials (NORM) and LLRW less than Class A. In 1991, the license was amended to permit disposal of mixed waste, LLRW containing hazardous materials. Subsequently, the license was amended several times to receive, store, possess, and/or dispose of naturally occurring and accelerator produced material (NARM), aqueous liquids and liquid mercury, Class A containerized waste, and special nuclear materials. The license was also amended to conduct waste treatment and processing at the site. Currently, in accordance with Utah Code Annotated 19-3-105, Envirocare may not receive Class B or Class C waste without first receiving approval of the Executive Secretary of the Utah Radiation Control Board, as well as approval from Utah Governor and the Legislature. Envirocare is required to maintain compliance with all conditions and schedules stipulated in the Utah Groundwater Discharge Permit, number UGW 450005, issued by the Executive Secretary of the Utah Water Quality Board.

The review of the LLRW disposal program was initiated through an early review of background materials and information relevant to the Division's LLRW program and related licensing activities. On May 20, 2003, three team members accompanied the Waste and Environmental Section (W&E Section) Manager and a W&E Section inspector during a one-day site visit to the Envirocare facility to discuss inspection activities, and examine facility operations and the overall site conditions. On June 25, 2003, a team member accompanied the Generator Site Access Specialist on an inspection of waste shipments and the manifest record evaluation.

The IMPEP assessment of the State's regulation and practices in administering the Envirocare facility was based upon the guidance found in NRC's Directive 5.6 for the LLRW disposal program non-common performance indicator. This indicator has five sub-indicators as follows: (1) Technical Staffing and Training; (2) Status of LLRW Disposal Inspection Program; (3) Technical Quality of Inspections; (4) Technical Quality of Licensing Actions; and (5) Response to Incidents and Allegations.

To evaluate the above sub-indicators, the team reviewed background materials on the site, participated in inspector accompaniments, reviewed the Utah response to the questionnaire, interviewed managers and staff, and reviewed records, as appropriate.

4.3.1 Technical Staffing And Training

The evaluation of this indicator focused on: (1) qualifications of the technical staff and the expertise necessary to regulate a LLRW disposal facility; (2) the development and implementation of a training program for the staff; and (3) staffing trends that could have an adverse impact on the quality of the program.

The W&E Section consists of a Section Manager and eleven full-time positions in five program areas; Indoor Radon, Uranium Mills, Waste Isolation Pilot Project (WIPP) Transportation Project, Generator Site Access, and the Envirocare Low-Level Radioactive Waste site. Staff members include two engineers, three hydrogeologists, five health physicists, and one Generator Site Access Coordinator. The W&E Section is currently fully staffed, and there were only three turn overs since the last IMPEP (two retirements and one transfer). Five new professionals have been added to the W&E Section as follows: a Program Coordinator for the "Generator Site Access" program; a transportation specialist and inspector for the "Generator Site Access" program; a Hydrologist; a Health Physicist/Environmental Scientist; and an Engineer. The review team determined that there was a good balance of technical expertise in the program, and that staff turnover had no adverse impact on the program .

An assessment was performed of the staff's education and experience against the "NRC/OAS Training Working Group Recommendations for Agreement State Training" and "Suggested State Requirements and Criteria for a Low-Level Radioactive Waste Disposal Site Regulatory Program." The team examined individual W&E Section staff training documentation and conducted interviews with all available staff to assess qualification and training needs. The Division has a generic training plan that specifies the required and recommended training for each technical position. A review of this plan shows that required training was provided to some staff. However, several of the W&E Section staff have not completed the training for their positions. In particular, those hired after the last IMPEP review have not completed the required and recommended training in the health physics and radiation protection areas. W&E Section staff interviews and the inspector (transportation specialist) accompaniment also showed that the level of knowledge in these areas needs improvement for selected staff. A review of the individual Qualification Forms shows that the forms have not been maintained up to date. The review team discussed specialized training planned for all technical staff in the area of health physics instrumentation (see Section 3.1), and in addition, the possibility of utilizing professional organizations information resources, such as the Health Physics Society, to help accommodate training needs. The review team recommends that W&E Section staff be provided the training listed in the training plan, and that individual Qualification Forms be updated, as appropriate.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the sub-indicator, Technical Staffing and Training, be found satisfactory with recommendations for improvement.

4.3.2 Status of the Low-Level Radioactive Waste Disposal Inspection Program

The Division has adopted NRC inspection guidance and procedures. The review team examined inspection files and conducted interviews with inspectors to determine that: (1) the LLRW disposal licensee is inspected at least annually, as prescribed in IMC 2800; (2) any

deviations from the prescribed inspection schedule are coordinated between working staff and management; and (3) inspection findings are communicated to licensees in a timely manner, as specified in IMC 0610-10.

The Division conducted annual inspections at Envirocare from 1998 to 2001, and each annual inspection included all activities at the site. However, since 2001, due to complexity of the review and timeliness of inspection needs; the Division improved its inspection program by dividing LLRW site inspections into multiple modules. Modular inspections are performed throughout the year and may be varied to accommodate additional licensing activities. The modules include, but are not limited to, radiation safety, engineering, groundwater, and environmental monitoring. The review team verified that this modular inspection approach is complete and meets the minimum annual inspection frequency for a LLRW facility. In addition, the Division has conducted inspections of waste shipments at the Envirocare facility daily, or as needed.

Modular inspections, as compared to annual inspections, enables the Division to utilize the technical staff more efficiently, provides for more timely inspections, and provides better oversight of the waste facility operations and performance. The team commends the Division for adopting a modular approach for inspection of the Envirocare LLRW facility, and recommends to the MRB that this be considered as a "good practice."

The mixed waste cell is inspected as part of the overall safety program. The review team, the Division Director and the W&E Section Manager discussed establishing an independent inspection safety module pertaining to the radiological safety aspect of the mixed waste disposal operation. Management agreed to the development of an independent mixed waste module.

The review team determined that inspection findings were being communicated to the licensee within a 30-day period.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the sub-indicator, Status of Low-Level Radioactive Waste Disposal Inspection Program, be found satisfactory.

4.3.3 Technical Quality of Inspections

The review team assessed the quality of LLRW disposal inspections by evaluating: (1) an accompaniment of a transportation specialist; (2) inspection field notes and completed reports (3) inspection procedures; (4) follow-up on previous inspection findings; (5) appropriate and prompt regulatory actions; and (6) annual supervisory accompaniments.

The team determined from a review of the inspection files sampled, that inspections were complete, the findings well-founded, appropriately documented, and reviewed by supervisors. The procedures for modular inspections have been established and used to help identify root causes and poor licensee performance. The W&E Section Manager reviews the inspection findings and periodically issues enforcement letters, penalties, or a notice of violation, as necessary. The findings and observations are maintained in a detailed inspection log. Field notes reflect findings during ongoing operations. All open items from the previous inspection files were either closed out or scheduled for follow-up action during the next modular inspection.

In addition, the State keeps a database regarding the Envirocare compliance history including violations. This database is a valuable tool for assessing and monitoring the LLRW disposal operations and performance. There were no performance issues identified in the inspections that were sampled.

Some of the inspection report documentation were missing or misplaced in the files. Division management believe that in some cases, documents were lost or misplaced when copies were requested by a member of the public. In these cases, files were allowed to be copied at an outside location, not under the control of the Division. The team discussed the need to manage the control, access, and filing of the records to improve efficiency and eliminate potential losses due to mishandling of files. The team and Division management also discussed the need for an electronic filing system to enhance the maintenance of the record keeping system.

The transportation specialist for the "Generator Site Access" program was accompanied on June 25, 2003. During the accompaniment the specialist demonstrated appropriate inspection skills, knowledge of the regulations, and is regarded as an expert on DOT regulations as related to waste transportation and manifest issues. However, the team noted that the specialist would benefit from additional training in health physics instrumentation as described in Section 3.1 and Section 4.3.1.

Supervisory accompaniments have been conducted only twice in 2002. The records did not show supervisory accompaniments for 1999, 2000, 2001, and 2003. Staff interviews also confirmed that supervisory accompaniments are rare. The team concluded that accompaniments of inspectors by their supervisors are rare and performed non-systematically. The review team recommends that LLRW inspectors receive annual supervisory accompaniments in a systematic fashion, and that accompaniments be appropriately documented.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the sub-indicator, Technical Quality of Inspections, be found satisfactory with recommendations for improvement.

4.3.4 Technical Quality of Licensing Actions

Division staff have been engaged in several significant LLRW disposal licensing issues. Envirocare is continuously modifying and optimizing its operations to enhance safety aspects and to remain competitive. The Envirocare license has been amended 16 times since the previous IMPEP. The major licensing actions were reviewed, and were determined to be generally thorough, complete, consistent, and of acceptable technical quality. The license conditions are clear and inspectable, health and safety issues were properly addressed, and the licensing process appears to be thorough and consistent.

The Division has the ability to utilize independent analyses and public hearings in the license review process. The Division hired a technical consultant to address certain complex technical issues to verify the licensee's analysis for a licensing action on an open cell. A public hearing was also held. This demonstrates that the licensing process is fair, thorough, and consistent.

The team noted that the surface release limits in Table 27-A of the license were based upon Regulatory Guide 1.86 criteria, and are inconsistent with current US Department of Transportation (DOT) regulations. The Division has this issue under consideration and is evaluating the table for compatibility.

The team noted that the Division incorporated the Envirocare security plan into the license as a specific license condition, and makes the licensee more accountable for incoming/outgoing material at the site. The Division will be in a better position to monitor, inspect, and enforce safety and security aspects regarding release of contaminated tools, containers, or materials from the site. The team believes that this emphasis will enhance the site safety and security aspects. The review team recommends to the MRB that incorporation of the security plan on the license be considered a good practice.

The team noted that there are some delays in licensing actions that do not meet the licensee's schedule. Based on team interviews with the W&E Section Manager, Envirocare is planning for numerous processing amendments and new projects that will require a significant level of effort from W&E Section staff. The review team and Division management discussed the additional level of effort and resources necessary to cope with the increasing demands for licensing actions.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the sub-indicator, Technical Quality of Licensing Actions, be found satisfactory.

4.3.5 Response to Incidents and Allegations

During the review period, the State received and addressed a total of eight allegations involving Envirocare LLRW activities, including allegations provided directly to the State and those referred to the Division by the NRC. The LLRW incidents and allegations were reviewed under the common indicator, Section 3.5. The review of the Division's allegation files indicates that the State took prompt and appropriate action in response to the concerns raised. The review team noted that all documentation related to the investigation of allegations was appropriately maintained in a separate file, except for one file which was inadvertently placed among the inspection reports files, which are available to staff and potentially to the public. The improvement in record keeping was discussed under Section 4.3.3. The team also noted the lack of generic staff training on the threshold for treating licensee employee's concerns as allegations. The review team discussed the sensitivity of handling allegations with all of the Division managers. As discussed in Section 3.5, the Division updated their Incident and Allegation procedures in May of 2003, and the team recommended that all Division managers and technical staff receive training on the changes and implementation of this revised procedure.

Based on IMPEP evaluation criteria, the review team recommends that Utah's performance with respect to the sub-indicator, Response to Incidents and Allegations, be found satisfactory.

4.3.6 Summary: Low-Level Radioactive Waste Disposal Program

The review team recommends a finding of satisfactory for three sub-indicators and satisfactory with recommendations for improvement for the sub-indicators, Technical Staffing and Training and Technical Quality of Inspections. The team notes that recommendations for improvement

involve training and inspector accompaniment issues, and that good practices were identified in two performance areas. Therefore, based on IMPEP evaluation criteria, the review team recommends that Utah's overall performance with respect to the indicator, Low-Level Radioactive Waste Disposal Program, be found satisfactory.

5.0 SUMMARY

As noted in Sections 3 and 4 above, the review team found Utah's performance to be satisfactory for all performance indicators. Accordingly, the review team recommends that the MRB find the Utah Agreement State Program to be adequate to protect public health and safety and compatible with NRC's program.

Below is a summary list of recommendations, as mentioned in earlier sections of the report, for implementation and evaluation, as appropriate, by the State.

RECOMMENDATIONS:

1. The review team recommends that additional training in the revised Administrative Policy regarding allegations be provided to all Division managers and technical staff, and to assure the policy is fully implemented. (Section 3.5)
2. The review team recommends that W&E Section staff be provided the training listed in the training plan, and that individual Qualification Forms be updated, as appropriate. (Section 4.3.1)
3. The review team recommends that LLRW inspectors receive annual supervisory accompaniments in a systematic fashion, and that accompaniments be appropriately documented. (Section 4.3.3)

GOOD PRACTICES:

1. The Division's custom database management system is programed to provide the staff with a "pop-up" window, each day upon logging in, that indicates who is working in the State under reciprocity during the next 7 day period. If there are no licensees working under reciprocity during that time period, the "pop-up" window indicates this as well. The system also tracks who had been in the State, when, where, and for how long. The team recommends that the Division's system for tracking licensees that are working in the State under reciprocity be considered a good practice. (Section 3.2)
2. Modular inspections, as compared to annual inspections, enables the Division to utilize the technical staff more efficiently, provides for more timely inspections, and provides better oversight of the waste facility operations and performance. The team commends the Division for adopting a modular approach for inspection of the Envirocare LLRW facility, and recommends to the MRB that this be considered as a "good practice." (Section 4.3.2)
3. The team noted that the Division incorporated the Envirocare security plan into the license as a specific license condition. The team believes that this emphasis will enhance the site safety and security aspects. The review team recommends to the

MRB that incorporation of the security plan on the license be considered a good practice. (Section 4.3.4)

LIST OF APPENDICES AND ATTACHMENTS

Appendix A	IMPEP Review Team Members
Appendix B	Utah Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Richard Woodruff, Region II	Team Leader Technical Staffing and Training
Linda McLean, Region IV	Response to Incidents and Allegations Legislation and Program Elements Required for Compatibility
Michael Fuller, Region IV	Status of Materials Inspection Program Technical Quality of Inspections Inspector Accompaniments
Shawn Seeley, Maine	Technical Quality of Licensing Actions
Boby Abu-Eid, NMSS/DWM Susanne Woods, NMSS/DWM	Low-Level Radioactive Waste Disposal Program

APPENDIX B

STATE OF UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY and DIVISION OF RADIATION CONTROL

ORGANIZATION CHARTS

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: Isomedix Operations, Inc.
Location: Sandy, Utah
License Type: Panoramic Irradiator
Inspection Date: 11/18/02

License No.: UT1800074
Inspection Type: Routine, Unannounced
Priority: 1
Inspectors: JF, GG

File No.: 2

Licensee: Geo Tek, Inc.
Location: Sandy, Utah
License Type: Portable Gauge
Inspection Date: 8/12/02

License No.: UT1800427
Inspection Type: Special Investigation
Priority: 3
Inspector: CJ

File No.: 3

Licensee: Gamma West Brachytherapy
Location: Salt Lake City, Utah
License Type: Medical Private Practice w/ HDR Remote Afterloader
Inspection Date: 1/22/02

License No.: UT2500453
Inspection Type: Initial, Announced
Priority: 1
Inspectors: JF, GG

File No.: 4

Licensee: Computalog Wireline Services, Inc.
Location: Vernal, Utah
License Type: Well Logging
Inspection Date: 1/7/03

License No.: UT2400412
Inspection Type: Routine, Unannounced
Priority: 2
Inspector: PG

File No.: 5

Licensee: Brigham Young University
Location: Provo, Utah
License Type: Academic Type B Broad Scope
Inspection Date: 2/14/03

License No.: UT2500081
Inspection Type: Routine, Unannounced
Priority: 2
Inspector: PG

File No.: 6

Licensee: University of Utah
Location: Salt Lake City, Utah
License Type: Academic/Medical Broad Scope
Inspection Date: August 27, 2002

License No.: UT1800001
Inspection Type: Routine, Unannounced, Team
Priority: 1
Inspectors: CJ, GG, PG

File No.: 7

Licensee: Production Logging Services, Inc.
Location: Vernal, Utah
License Type: Well Logging
Inspection Date: 2/26/02

License No.: UT0700260
Inspection Type: Routine, Unannounced
Priority: 2
Inspector: PG

File No.: 8

Licensee: Pharmaceutical and Diagnostic Services, Inc.
Location: Salt Lake City, Utah
License Type: Nuclear Pharmacy
Inspection Date: 5/6/03

License No.: UT1800225
Inspection Type: Routine, Unannounced
Priority: 1
Inspector: PG

File No.: 9

Licensee: Intermountain Testing Services, LLC

Location: Roy, Utah

License Type: Portable Gauge

Inspection Date: 7/12/02

License No.: UT2900422

Inspection Type: Routine, Unannounced

Priority: 3

Inspector: JF

File No.: 10

Licensee: Met-Chem Testing Laboratories of Utah, Inc.

Location: Salt Lake City, Utah

License Type: Industrial Radiography

Inspection Date: 5/14/01

License No.: UT1800146

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: GG

INSPECTOR ACCOMPANIMENTS

The following inspection accompaniments were made as part of the on-site IMPEP review:

Accompaniment No.: 1

Licensee: Pharmaceutical and Diagnostic Services, Inc.

Location: Salt Lake City, Utah

License Type: Nuclear Pharmacy

Inspection Date: 5/6/03

License No.: UT1800225

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: PG

Accompaniment No.: 2

Licensee: Geneva Rock Products, Inc.

Location: Draper, Utah

License Type: Portable Gauge

Inspection Date: 5/7/03

License No.: UT2500089

Inspection Type: Routine, Unannounced

Priority: 3

Inspector: CC

Accompaniment No.: 3

Licensee: Jordan Valley Hospital

Location: West Jordan, Utah

License Type: Medical Institution

Inspection Date: 5/8/03

License No.: UT1800231

Inspection Type: Routine, Unannounced

Priority: 3

Inspector: PG

Accompaniment No.: 4

Licensee: Envirocare of Utah, Inc

Location: Clive, Utah

License Type: Waste Disposal

Inspection Date: 6/25/03

License No.: UT2300249

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: JF

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: Ballard Medical Products
Location: Draper, UT
License Type: R&D/Manuf. & Distribution
Date Issued: 2/20/03

License No.: 1800416
Amendment No.: 3
Type of Action: Amendment
Reviewer: CC, GG, CJ

File No.: 2

Licensee: University of Utah
Location: Salt Lake City, UT
License Type: Broad Academic/Medical
Date Issued: 4/25/03

License No.: 1800001
Amendment No.: 42
Type of Action: Amendment
Reviewer: JF, PG, CJ

File No.: 3

Licensee: University of Utah
Location: Salt Lake City, UT
License Type: Broad Academic/Medical
Date Issued: 10/24/01

License No.: 1800001
Amendment No.: 36
Type of Action: Renewal
Reviewer: JF, CJ

File No.: 4

Licensee: Mark Steel Corporation
Location: Salt Lake City, UT
License Type: Industrial Radiography
Date Issued: 2/2/01

License No.: 1800293
Amendment No.: 8
Type of Action: Renewal
Reviewer: GG

Comment: Maximum activity allowed in license exceeds what SSD allows.

File No.: 5

Licensee: H & G Inspection Corp
Location: Morgan, UT
License Type: Industrial radiography (Temp Job Sites)
Date Issued: 11/30/01

License No.: 1500442
Amendment No.: 1
Type of Action: Amendment
Reviewer: CC, GG

File No.: 6

Licensee: Plateau Mining Corp.
Location: Helper, UT
License Type: Fixed Gauge
Date Issued: 6/5/03

License No.: 0400224
Amendment No.: NA
Type of Action: Termination
Reviewer: CJ, PG

File No.: 7

Licensee: Stephen Jones
Location: Salt Lake City, UT
License Type: Storage only
Date Issued: 10/10/02

License No.: 1800394
Amendment No.: NA
Type of Action: Termination
Reviewer: CJ

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License Casework Reviews

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File No.: 8

Licensee: Deltagen Proteomics, Inc.
Location: Salt Lake City, UT
License Type: Research & Development
Date Issued: 3/26/03

License No.: 1800429
Amendment No.: NA
Type of Action: Termination
Reviewer: CJ, PG

File No.: 9

Licensee: Bush & Gudgell, Inc.
Location: Salt Lake City, UT
License Type: Portable Gauge
Date Issued: 1/22/03

License No.: 1800181
Amendment No.: NA
Type of Action: Termination
Reviewer: CJ, CC

File No.: 10

Licensee: Gamma West Brachytherapy
Location: Salt Lake City, UT
License Type: Brachytherapy/HDR
Date Issued: 6/3/03

License No.: 2500453
Amendment No.: 6
Type of Action: Amendment
Reviewer: JF, CJ

File No.: 11

Licensee: Gamma West Brachytherapy
Location: Salt Lake City, UT
License Type: Brachytherapy/HDR
Date Issued: 3/26/03

License No.: 2500453
Amendment No.: 5
Type of Action: Amendment
Reviewer: GG, CJ

File No.: 12

Licensee: Brigham Young University
Location: Provo, UT
License Type: Academic Broad B
Date Issued: 4/3/01

License No.: 2500081
Amendment No.: 6
Type of Action: Amendment
Reviewer: GG

File No.: 13

Licensee: Watson Engineering
Location: Cedar City, UT
License Type: Portable Gauge
Date Issued: 2/2/00

License No.: 1100377
Amendment No.: 2
Type of Action: Renewal
Reviewer: GG

File No.: 14

Licensee: Utah Cardiology, P.C.
Location: Layton, UT
License Type: Medical, Limited
Date Issued: 2/19/03

License No.: 0600436
Amendment No.: 4
Type of Action: Amendment
Reviewer: JF, CJ

File No.: 15

Licensee: Utah Cardiology, P.C.
Location: Layton, UT
License Type: Medical, Limited
Date Issued: 7/25/00

License No.: 0600436
Amendment No.: NA
Type of Action: New
Reviewer: JF

File No.: 16

Licensee: Staker & Parson Comp., dba Western Rock Products

Location: St. George, UT

License Type: Portable Gauge

Date Issued: 6/18/03

License No.: 2700468

Amendment No.: NA

Type of Action: New

Reviewer: CC, PG

Comment:

In "tie-down" condition 24.B., there is a duplicate "Letter dated" statement.

File No.: 17

Licensee: Isomedix

Location: Sandy, UT

License Type: Pool Irradiator

Date Issued: 2/24/03

License No.: 1800074

Amendment No.: 17

Type of Action: Amendment

Reviewer: CC, JF

File No.: 18

Licensee: Utah Valley Regional Medical Center

Location: Provo, UT

License Type: Medical Institution, Limited

Date Issued: 2/20/01

License No.: 2500129

Amendment No.: 15

Type of Action: Renewal

Reviewer: GG

Comment:

In the "tie-down" condition, a letter with an incorrect date (1/15/00), listed as 1/15/01.

Later changed to: "Letter dated January 15, 2000 (received January 19, 2001)" in amendment #19.

File No.: 19

Licensee: Utah Valley Regional Medical Center

Location: Provo, UT

License Type: Medical Institution, Limited

Date Issued: 6/23/03

License No.: 2500129

Amendment No.: 21

Type of Action: Amendment

Reviewer: JF, CJ

File No.: 20

Licensee: Geneva Steel, A Utah Corp.

Location: Vineyard, UT

License Type: Fixed Gauge

Date of action: 2/1/99

License No.: 2500251

Amendment No.: NA

Type of Action: Bankruptcy

Reviewer: CJ

File No.: 21

Licensee: Magnesium Corp. of America

Location: Salt Lake City, UT

License Type: Fixed Gauge

Date of action: 8/2/01

License No.: 1800054

Amendment No.: NA

Type of Action: Bankruptcy

Reviewer: CJ

STATUS OF FORMERLY TERMINATED SITES

File No. 22

Licensee: Met Chem Testing Labs

Status: Closed

Date of action: 4/14/03

Reviewer: CJ

File No. 23

Licensee: Univ. of Utah, SNM license

Status: Closed

Date of action: 8/12/02

Reviewer: CJ

File No. 24

Licensee: Utah DOT

Status: Awaiting affidavit from former DOT employee, should be closed by the end of year

Status: open

Reviewer: CJ

File No. 25

Licensee: Ore Beneficiation Company

Status: Awaiting DOE flyover data for closure, should be closed by the end of year

Status: Open

Reviewer: CJ

File No. 26

Licensee: Sawyer Petroleum Corp.

Status: Awaiting DOE flyover data for closure, should be closed by the end of year

Status: Open

Reviewer: CJ

File No. 27

Licensee: Kaiser Steel Corp.

Status: Company out of business, attempting to locate former employees, should be closed by the end of year

Status: Open

Reviewer: CJ

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY; NO SIGNIFICANT COMMENTS WERE IDENTIFIED BY THE IMPEP TEAM.

File No.: 1

Licensee: Nuclear Testing Services
Site of Incident: Salt Lake City, UT
Date of Incident: 1/18/00
Investigation Date: 1/18/00

License No.: UT-18001-39
Incident Log No.: UT000002 (NMED #000040)
Type of Incident: Lost/Stolen Material
Type of Investigation: On-Site

File No.: 2

Licensee: Willard Bay State Park
Site of Incident: Willard Park, UT
Date of Incident: 7/1/99
Investigation Date: 7/1/99

License No.: Non Licensee
Incident Log No.: NA (NMED #990413)
Type of Incident: Loss of Control
Type of Investigation: On-Site

File No.: 3

Licensee: Utah State University
Site of Incident: Logan, UT
Date of Incident: 9/3/99
Investigation Date: 9/3/00

License No.: UT-3001-59
Incident Log No.: UT990002 (NMED #990608)
Type of Incident: Leaking Source
Type of Investigation: Phone/30-day Report

File No.: 4

Licensee: University of Utah
Site of Incident: Salt Lake City, UT
Date of Incident: 1/11/00
Investigation Date: 1/11/01

License No.: UT-18000-01
Incident Log No.: UT000001 (NMED #000036)
Type of Incident: Equipment Failure
Type of Investigation: Phone/30-day Report

File No.: 5

Licensee: Rocky Mountain Health Physics Consultants
Site of Incident: Plymouth, UT
Date of Incident: 3/6/00
Investigation Date: 3/6/00

License No.: UT-18003-43
Incident Log No.: CA000012 (NMED #000163)
Type of Incident: Loss of Control
Type of Investigation: Phone/30-day Report

File No.: 6

Licensee: Utah State University
Site of Incident: Logan, UT
Date of Incident: 6/5/00
Investigation Date: 6/5/00

License No.: UT-030001-59
Incident Log No.: UT000003 (NMED #000418)
Type of Incident: Leaking Source
Type of Investigation: Phone/30-day Report

File No.: 7

Licensee: Envirocare of Utah, Inc.
Site of Incident: Salt Lake City, UT
Date of Incident: 2/22/02
Investigation Date: 2/22/02

License No.: UT-23002-49
Incident Log No.: UT020001 (NMED #020214)
Type of Incident: Loss of Control
Type of Investigation: Special Inspection

File No.: 8

Licensee: Delta Geotechnical Consultants, Inc.
Site of Incident: Las Vegas, NV
Date of Incident: 3/1/01
Investigation Date: 3/1/01

License No.: UT-18000-38
Incident Log No.: NV020010 (NMED #010196)
Type of Incident: Lost/Stolen Material
Type of Investigation: Phone/30-day Report

File No.: 9

Licensee: Kennecott Utah Copper

Site of Incident: Magna, UT

Date of Incident: 8/19/01

Investigation Date: 8/19/01

License No.: UT-18002-89

Incident Log No.: UT010002 (NMED #011060)

Type of Incident: Equipment Failure

Type of Investigation: Phone/30-day Report

File No.: 10

Licensee: Garco, Testing Laboratory

Site of Incident: Willard, UT

Date of Incident: 9/13/01

Investigation Date: 9/13/01

License No.: UT-18001-53

Incident Log No.: UT010003 (NMED #010837)

Type of Incident: Loss of Control

Type of Investigation: On-Site

File No.: 11

Licensee: Geotek, Inc.

Site of Incident: Sandy, UT

Date of Incident: 8/12/02

Investigation Date: 8/12/02

License No.: UT-18004-27

Incident Log No.: UT020002 (NMED #020762)

Type of Incident: Lost/Stolen Material

Type of Investigation: On-Site

File No.: 12

Licensee: American Testing Services

Site of Incident: West Valley City, UT

Date of Incident: 11/1/02

Investigation Date: 11/5/02

License No.: UT-18000-62

Incident Log No.: UT20004 (NMED #021018)

Type of Incident: Lost/Stolen Material

Type of Investigation: Special Inspection

File No.: 13

Licensee: University of Utah

Site of Incident: Salt Lake City, UT

Date of Incident: 1/14/03

Investigation Date: 1/14/03

License No.: UT-18000-01

Incident Log No.: UT030001 (NMED #030167)

Type of Incident: Lost/Stolen Material

Type of Investigation: Phone/30-day Report