

July 22, 2003

Ms. Yvonne Sylva, Administrator  
State Health Division  
Department of Human Resources  
505 E. King Street  
Carson City, NV 89701-4797

Dear Ms. Sylva:

On July 10, 2003, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Nevada Agreement State Program. The MRB found that the Nevada program (1) is adequate, but needs improvement, and (2) compatible with the Nuclear Regulatory Commission's (NRC) program.

Significant improvement was seen in several performance indicators. Most notably, the Status of Materials Inspection Program indicator improved from an unsatisfactory finding to satisfactory with recommendations for improvement. The audit by the Department of Administration and resulting plans to increase fees, add staff, and increase training, addresses the root causes of the program deficiencies. Although the actions have yet to be completed, the management commitment seen by the review team during this follow-up IMPEP review is noteworthy. The review team recommended, and the MRB agreed, that heightened oversight of the Nevada program be terminated, that the State enter into a period of program monitoring, and that a full IMPEP review of the Nevada program be performed in two years.

Section 4.0, page 12, of the enclosed final report presents the follow-up IMPEP team's recommendations for the State of Nevada. We received your May 30, 2003 letter which described your actions taken in response to the recommendations in the draft report. We request no additional information at this time.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Radiation Control Program and the significant underlying improvements in the program which are beginning to be reflected in the program's performance. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

*/RA/*

Carl J. Paperiello  
Deputy Executive Director  
for Materials, Research and State Programs

Enclosure:  
As stated

cc: See next page

cc: Alex Haartz, Deputy Administrator

Stanley R. Marshall, Supervisor  
Radiological Health Section

Robert R. Loux, Executive Director  
Agency for Nuclear Projects

William Sinclair, Utah  
OAS Liaison to MRB

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
FOLLOW-UP REVIEW OF NEVADA AGREEMENT STATE PROGRAM

APRIL 7-10, 2003

# FINAL REPORT

U.S. Nuclear Regulatory Commission

## 1.0 INTRODUCTION

This report presents the results of the follow-up review of the Nevada radiation control program, conducted April 7-10, 2003. This follow-up review was directed by the Management Review Board (MRB) based on the results of the September 10-14, 2001 Integrated Materials Performance Evaluation Program (IMPEP) review. The MRB directed that a follow-up review of the Status of Materials Inspection Program, Technical Staffing and Training, Response to Incidents and Allegations, and Legislation and Program Elements Required for Compatibility indicators, be conducted in approximately one and one-half years from the MRB meeting. The decision was based on one "unsatisfactory" and three "satisfactory with recommendations for improvement" findings for the performance indicators. The follow-up review also included evaluation of the actions taken by the State to address the seven recommendations made during the 2001 IMPEP review.

In addition, since review of the Low-Level Radioactive Waste Disposal Program performance indicator was not done in 2001, due to the absence of a team member, the MRB directed that the follow-up review include a full review of that indicator.

The follow-up review was conducted by a review team consisting of technical staff members from the Nuclear Regulatory Commission (NRC) and the State of California. Review team members are identified in Appendix A. The follow-up review was conducted in accordance with the November 5, 1999, [NRC Management Directive 5.6](#), "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the follow-up review, which covered the period of September 15, 2001 to April 10, 2003, were discussed with Nevada management on April 10, 2003.

A draft of this report was issued to Nevada for factual comment on May 9, 2003. The State responded by letter dated May 30, 2003. The Management Review Board (MRB) met on July 10, 2003 to consider the proposed final report. The MRB found the Nevada radiation control program adequate, but needs improvement, and compatible with NRC's program.

The Nevada Agreement State program is administered by the Radiological Health Section (the Section) of the Bureau of Health Protection Services (the Bureau), State Health Division (the Division), Nevada Department of Human Resources. Organization charts for the State and Bureau are included as Appendix B. At the time of the follow-up review, the Nevada program regulated 233 specific licenses, including broad academic programs, medical programs, radiopharmacies, industrial radiographers, and a non-operating low-level radioactive waste disposal 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 Nevada.

After the last IMPEP review, the State conducted an independent program assessment and made a decision to retain the Agreement materials program rather than turn it back to the NRC. An executive branch committee, chaired by the Governor, made commitments to strengthen the program by raising license fees to generate funds for increased staffing and to support training of staff. These are significant efforts that will strengthen program performance as they are implemented.

Prior to the follow-up review, the NRC conducted a period of heightened oversight of the Nevada program which included Nevada developing and submitting a Program Improvement Plan in response to the 2001 IMPEP review, and bimonthly conference calls with the NRC to discuss Nevada's progress in implementing the Plan. The Program Improvement Plan was submitted on March 25, 2002. Conference calls were held April 16, 2002, June 13, 2002, August 7, 2002, October 15, 2002, December 18, 2002, and February 25, 2003. The Program Improvement Plan and minutes from the calls are referenced in Appendix D.

The review team's general approach for conduct of this follow-up review consisted of: (1) examination of the heightened oversight information, (2) review of applicable Nevada statutes and regulations, (3) analysis of quantitative information from the Section's licensing and inspection databases, (4) interviews with staff and management to answer questions or clarify issues, (5) evaluation of incident databases, and (6) a site visit to the Beatty low-level radioactive waste disposal site. The review team evaluated the information gathered against the IMPEP performance criteria for the three common and two non-common performance indicators and made a preliminary assessment of the State's performance.

Section 2 below discusses the results of the follow-up review of the Nevada program for the three common performance indicators. Section 3 below discusses the results of the follow-up review of the Nevada program for the two non-common performance indicators. Section 4 summarizes the follow-up review team's findings and recommendations.

## 2.0 COMMON PERFORMANCE INDICATORS

The review addressed three of the five common performance indicators used in reviewing both NRC Regional and Agreement State programs. The indicators are: (1) Technical Staffing and Training, (2) Status of Materials Inspection Program, and (3) Response to Incidents and Allegations. Although the team did not review the performance indicator, Technical Quality of Inspections, one recommendation from the 2001 IMPEP review for that indicator is addressed below.

### 2.1 Technical Staffing and Training

During the follow-up review, the review team evaluated actions taken by the Nevada program in response to Recommendation 5 and evaluated the current status of the staffing and training of the Nevada program.

Issues central to the evaluation of this indicator include the Section's staffing level, staff turnover, staff technical qualifications, and training histories. To evaluate these issues, the review team examined the Section's training program, interviewed Section management and staff, and reviewed job descriptions and training records. The review team also examined program workloads.

The review team's evaluation of the Nevada program's response to Recommendation 5, from the 2001 IMPEP review, is presented below.

Recommendation 5

“The review team recommends that the Division review the level of staff effort needed for the program and ensure that an adequate compliment of trained and qualified staff is devoted to the Agreement State program.”

Current Status

In light of the 2001 IMPEP review results and in consideration of fiscal conditions facing the State, the Department of Human Resources queried the Governor’s Office as to whether the State should continue to administer the Agreement radioactive materials program or transfer the responsibility back to the NRC. The Department of Administration performed an audit of the program to answer the question. On March 19, 2003, the audit report was presented to the Executive Branch Audit Committee, chaired by the Nevada Governor. The audit concluded that the State should retain the Agreement radioactive materials program. Two specific recommendations were made: (1) Raise licensing fees to cover the State’s cost and continue administering the program; and (2) Evaluate staffing levels to ensure the program is operating effectively and complies with State and federal requirements.

In April 2003, the Nevada legislature accepted the audit recommendations and voted to make the Section entirely fee funded in fiscal year 2005 (beginning in July 2004). The Division would raise fees in fiscal year 2004 to cover program costs, including an increase in staffing levels. The Division indicated that proposed regulations to increase fees are expected to be presented for adoption by the Nevada State Board of Health on October 24, 2003. Upon approval by the Board, the Department will request authorization to use revenue from the increased fees to elevate staffing and other program activities (including training) to appropriate levels. The Division’s intent is to increase the level of staffing to approximately double current levels for the entire radiation protection program, including radioactive materials, x-ray, and mammography.

The Division had also hired a consultant in October 2002 to provide an objective assessment of program staffing time and effort for the radioactive materials program. The assessment is currently in progress and is expected to be completed by June 30, 2003. This assessment, coupled with the Department of Administration audit findings, will provide a basis for identifying a specific staffing increase.

The review team concluded, given the audit report and independent staffing assessment, that this recommendation, from the 2001 IMPEP review, should be closed. The second part of this recommendation is discussed in greater detail below.

During the summer of 2002, the Section reassigned staff from the x-ray program to aid in addressing the backlog of overdue materials inspections and to complete materials inspections in a timely manner. This reassignment resulted in a total of approximately 3 full-time equivalent staff (FTE) assigned to the radioactive materials program. The staffing is broken down as follows:

Radiation Staff Specialist (Carson City)	0.9 FTE
Radiation Staff Specialist (Carson City)	0.4 FTE
Radiation Control Specialist (Carson City)	1.0 FTE
Radiation Control Specialist (Carson City)	0.4 FTE
Radiation Staff Specialist (Las Vegas)	0.3 FTE

Based on the workload observed, and the conclusions presented in the independent Department of Administration audit report, the review team does not believe that the current staffing level is adequate to properly implement the Agreement materials program. The review team recommends that the State, in accordance with the Department of Administration audit report, increase the radioactive materials program staff to meet program needs.

Due to current budget limitations, training for Section staff has virtually halted. The training budget for the entire Section in their fiscal year 2003 was less than \$1,600. This limited amount of training budget, along with out-of-State travel restrictions, has severely limited the ability of the program to maintain a technically trained staff. The Division's training policy is similar to the NRC/Organization of Agreement States Training Working Group Report. The policy requires that technical staff complete seven core training courses or equivalent alternatives such as on-the-job training, or computer-based training. Five additional training courses are identified in the policy for advanced staff training.

After discussions with staff and review of training records, the team identified that Section staff members are not being trained in accordance with the policy. Specifically, one of the core training courses is Transportation of Radioactive Material. Only one of the five technical staff has attended the course or received equivalent instruction. Another course, Teletherapy and Brachytherapy, is advised, by the policy, for those staff members who perform inspection or licensing of those modalities. None of the staff members has taken the course or received equivalent training in teletherapy or brachytherapy. Interviews with staff indicated that in-house preparation, including study of manufacturers' training manuals, is done prior to inspecting or licensing a type of license for which the individual has little experience.

The review team noted, in discussions with Division management, that when additional staff are hired, it will be imperative that appropriate training be made available, in a timely manner, so that the new staff members achieve appropriate qualification to perform radioactive material inspections and to complete licensing actions. The review team recommends that the State provide training to current and future technical personnel, either by formal course work or equivalent, as prescribed by the Division's training policy.

The review team concludes that the Nevada program has made significant progress with program analysis and efforts to raise fees, which in turn, will allow hiring and training of staff. Implementation of these activities must be completed to alleviate the under staffing and training problems which currently face the program. Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Nevada's performance with respect to the indicator, Technical Staffing and Training, was satisfactory with recommendations for improvement. This finding remains unchanged from the 2001 review.

## 2.2 Status of Materials Inspection Program

During the follow-up review, the review team evaluated actions taken by the Section in response to the finding of unsatisfactory made during the 2001 IMPEP review, the status of the inspections performed since the 2001 review, and the current status of due and overdue inspections.

The review team examined the timeliness of core inspections performed since the last review period, the current backlog of overdue inspections, reciprocity inspections and the timeliness in

communication of inspection results to licensees. The review team independently reviewed inspection files to verify the dates of inspections, and to determine the date of the issuance of inspection results to licensees relative to the date of inspection. All inspection results reviewed were issued to the licensee within 30 days of the date of the inspection. The other aspects reviewed are discussed below in the context of the review team's evaluation of the Section's responses to the three 2001 IMPEP review recommendations.

### Recommendation 1

"The review team recommends that the Section take appropriate measures to conduct core inspections (including initial inspections) in accordance with the NRC's inspection priority system, and to assess the current priority system."

### Current Status

In response to this recommendation, the Section reassigned staff from other program areas to assist in the timely performance of materials inspections. These reassignments were not made until summer 2002. Thus, over this review period the Section continued to experience difficulty in performing timely inspections. During the review period, the Section completed 53 inspections. Six core inspections were performed overdue during the review period, and there were two overdue inspections pending at the time of this review. One of the overdue inspections was also overdue during the 2001 IMPEP review. The amount of time the other inspections were overdue or were performed overdue ranged from eight months (a priority one inspection) to 39 months (a priority three inspection) beyond the due date.

Based on the Section's policy regarding the performance of initial inspections within six months of receipt of radioactive material, or within a year of license issuance, whichever comes first, there were five initial inspections performed overdue, although all were performed within one year of license issuance. Using the Section's criterion for the timely performance of initial inspections, a total of 13 of 55 inspections (23.6%) that should have been completed during the review period, were performed on an overdue basis, or were overdue and not yet completed at the time of this review.

The review team also considered the NRC's current criterion for performance of initial inspections, as stated in Inspection Manual Chapter (IMC) Temporary Instruction 2800/033, Revision 2. This criterion permits performance of initial inspections within one year of license issuance. The team found that the Section had completed all initial inspections during the review period in accordance with this criterion. Using this criterion, a total of 8 of 55 inspections (14.5%) were performed on an overdue basis or were overdue and not yet completed at the time of this review.

The review team elected to review the Section's performance under both criteria to ensure a fair performance-based assessment of the progress made during the review period. Under either criterion, the Section's performance improved relative to the findings of the 2001 IMPEP review. However they continue to experience some difficulty in performing timely inspections. The root cause appears to be directly related to staffing levels, and particularly affected performance in the Section's Las Vegas region. Once the reassignments were made in mid-2002, the five overdue initial inspections, all in the Las Vegas region, were performed within the next three months.

While improvement was seen, and staffing levels were increased by reassigning staff from another program area, the inspection timeliness goals were not met during this review period. As noted above, two inspections remained overdue at the time of the on-site review (one of which was 39 months overdue). On these bases, the review team concludes that this recommendation should remain open.

### Recommendation 2

“The review team recommends that the Section adopt an initial inspection policy similar to the schedule for initial inspections contained in IMC 2800.”

### Current Status

Since the last review, the Section revised their written policy on the performance of initial inspections to meet the objectives of IMC 2800. As discussed in the context of Recommendation 1, above, the Section was not able to fully implement this revision due to a lack of a sufficient number of staff, particularly affecting their office in the Las Vegas region. Also, as discussed in the context of Recommendation 1, the Section did meet the criterion in IMC TI 2800/033. If the NRC finalizes this criterion, the Section may want to re-visit their policy on the conduct of initial inspections to reflect the more lenient criterion. This recommendation is closed.

### Recommendation 3

“The review team recommends that the Section perform reciprocity inspections as specified in IMC 1220.”

### Current Status

During the IMPEP review period, the State approved reciprocity requests from thirty core licensees and conducted six inspections. The performance criterion for reciprocity inspections is 20% of core licensees as indicated in IMC 1220. The Section’s performance over the entire IMPEP review period met this criterion. This recommendation is closed.

The review team concludes that the status of the materials inspection program has made progress since the 2001 IMPEP review, but the Section still performed more than 10% of their inspections on an overdue basis, and had two overdue inspections pending during the follow-up on-site review. Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Nevada’s performance with respect to the indicator, Status of Materials Inspection Program, was satisfactory with recommendations for improvement. This finding has improved from an unsatisfactory finding from the 2001 review.

## 2.3 Technical Quality of Inspections

The review team did not review this performance indicator during the follow-up, however, actions addressing one recommendation from the previous IMPEP review were evaluated.

#### Recommendation 4

“The review team recommends that the Section conduct annual accompaniments of both new and experienced staff to ensure continued technical quality of inspections and to assist in the training and qualifications of staff.”

#### Current Status

Since the last review, the Section reemphasized accompaniments by the Section Supervisor or Senior Radiation Staff Specialist. Each of the five individuals authorized to perform inspections were accompanied since the last review. This recommendation is closed.

#### 2.4 Response to Incidents and Allegations

During this follow-up review, the review team evaluated actions taken by the Section in response to the finding of satisfactory with recommendations for improvement made during the 2001 IMPEP review. Recommendation 6 made during the 2001 review addressed the Section’s reporting of radioactive material incidents. The review team also evaluated the Section’s actions in response to the receipt of allegations.

#### Recommendation 6

“The review team recommends that the Section report all significant and 30-60 day notification event and follow-up event information, to the NRC in accordance with STP Procedure SA-300, Reporting Materials Events.”

#### Current Status

In response to this recommendation, the review team evaluated incidents listed for Nevada in the “Nuclear Materials Events Database” (NMED) against those contained in the Nevada files, and evaluated the casework and supporting documentation for six materials incidents. A list of the reportable incident casework examined with case-specific comments is included in Appendix C. The team also examined the Section’s response to one allegation involving radioactive materials that was referred to the Section, by the NRC, during the review period.

The review team discussed the Section’s incidents and allegation procedures, file documentation, NMED, and notifications to the NRC Operations Center with the Section Supervisor and selected staff.

Nine incidents were reported during the review period. Of those nine events, the team found that only six involved Atomic Energy Act material and all were appropriately reported to the NRC Operations Center and found in the NMED database. The incidents reviewed included: unsecured, recovered and damaged portable gauges, an equipment problem, and a leaking sealed source. This recommendation is closed.

During the review period, the Section received one allegation that was referred by the NRC. The review team evaluated the allegation response and determined that the Section took appropriate action in response to the concerns raised.

The review team examined State policies and procedures to ascertain whether an alleged identity can be protected from disclosure. According to the Section Supervisor, Nevada regulations protect the identity of licensee employees making allegations, but the regulations do not cover members of the public. The Nevada public records statute found in Nevada Revised Statutes Section 239.010, requires that records of a governmental entity, the contents of which are not otherwise declared by law to be confidential, must be available for public review. These publicly available records include alleged identities.

This finding is contrary to information in STP Procedure [SA-400 "Management of Allegations,"](#) Appendix C, which states that Nevada can protect an alleged identity from public disclosure. This information was provided to the NRC Office of State and Tribal Programs for correction of the information.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Nevada's performance with respect to the indicator, Response to Incidents and Allegations, was satisfactory. This finding has improved from a satisfactory with recommendations for improvement finding from the 2001 review.

### 3.0 NON-COMMON PERFORMANCE INDICATORS

This review addressed two of the non-common performance indicators used in reviewing Agreement State programs. The indicators are: (1) Legislation and Program Elements Required for Compatibility; and (2) Low-Level Radioactive Waste Disposal Program.

#### 3.1 Legislation and Program Elements Required for Compatibility

##### 3.1.1 Legislation

Legislative authority to create an agency and enter into an agreement with the NRC is granted in Nevada Revised Statutes Section 459. The Nevada State Health Division is designated as the State's radiation control agency. The review team noted that no legislation affecting the program was passed during the review period.

##### 3.1.2 Program Elements Required for Compatibility

The Nevada Regulations for State Control of Radiation, is found in Chapter 459 of the Nevada Administrative Code, and applies to all ionizing radiation, whether emitted from radionuclides or devices. Nevada requires a license for possession, and use, of all radioactive material including naturally occurring materials, such as radium and accelerator-produced radionuclides. Nevada also requires registration of all equipment designed to produce x-rays or other ionizing radiation.

The review team's evaluation of the Nevada's response to the 2001 IMPEP review recommendation is presented below.

Recommendation 7

“The review team recommends that the Section develop and implement an action plan to adopt NRC regulations in accordance with current policy on adequacy and compatibility.” This recommendation is closed.

Current Status

The Nevada program has taken notable action to adopt overdue regulations. During the period under review, the team found that the State addressed the following 10 NRC regulatory amendments. The regulations were adopted by the Nevada Board of Health on March 28, 2003. The regulations were filed with the Secretary of State and became effective on May 30, 2003.

- “Termination or Transfer of Licensed Activities: Recordkeeping Requirements,” 10 CFR Parts 20, 30, 40, 61, 70 amendments (61 FR 24669) that became effective June 17, 1996.
- “Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act-Part 20,” 10 CFR Part 20 amendment (61 FR 65120) that became effective on January 9, 1997.
- “Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State,” 10 CFR Part 150 amendment (62 FR 1662) that became effective February 27, 1997.
- “Criteria for the Release of Individuals Administered Radioactive Material,” 10 CFR Parts 20 and 35 amendments (62 FR 4120) that became effective May 29, 1997.
- “Licenses for Industrial Radiography and Radiation Safety - Requirements for Industrial Radiography Operations,” 10 CFR Parts 30, 34, 71, and 150 amendments (62 FR 28948) that became effective June 27, 1997.
- “Radiological Criteria for License Termination,” 10 CFR Parts 20, 30, 40, and 70 amendments (62 FR 39057) that became effective August 20, 1997.
- “Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea,” 10 CFR Part 30 amendment (62 FR 63634) that became effective January 2, 1998.
- “Deliberate Misconduct by Unlicensed Persons,” 10 CFR Parts 30, 40, 61, 70, and 150 amendments (63 FR 1890; 63 FR 13773) that became effective on February 12, 1998.
- “Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations,” 10 CFR Part 34 amendment (63 FR 37059) that became effective on July 9, 1998.

- “Minor Corrections, Clarifying Changes, and a Minor Policy Change,” 10 CFR Parts 20, 35, and 36 amendments (63 FR 39477; 63 FR 45393) that became effective on October 26, 1998.

The following two regulations are overdue. Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally binding requirements no later than three years after NRC’s effective date. The Section stated that these regulations will be addressed by adopting legally binding requirements.

- “Transfer for Disposal and Manifests: Minor Technical Conforming Amendment,” 10 CFR Part 20 amendment (63 FR 50127) that became effective November 20, 1998.
- “Respiratory Protection and Controls to Restrict Internal Exposures,” 10 CFR Part 20 amendment (64 FR 54543; 64 FR 55524) that became effective on February 2, 2000.

The team identified the following five regulation changes and adoptions that will be needed in the future.

- “Energy Compensation Sources for Well Logging and Other Regulatory Clarifications” 10 CFR Part 39 amendment (65 FR 20337) that became effective on May 17, 2000.
- “New Dosimetry Technology,” 10 CFR Parts 34, 36, and 39 amendments (65 FR 63749) that became effective January 8, 2001.
- “Revision to 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 Parts 20, 32, and 35 amendments (67 FR 20249) that became effective April 24, 2002.
- “Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Materials,” 10 CFR Parts 30, 31, 32 amendments (65 FR 79162) that became effective February 16, 2001.

Based on the IMPEP evaluation criteria, the review team recommended and the MRB agreed that Nevada’s performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, was satisfactory. This finding has improved from a satisfactory with recommendations for improvement finding from the 2001 review.

### 3.2 Low-Level Radioactive Waste (LLRW) Disposal Program

The review team focused on five factors in reviewing the LLRW Disposal Program performance indicator: (1) Technical Staffing and Training; (2) Status of Inspection Program; (3) Technical Quality of Inspections; (4) Technical Quality of Licensing Actions; and (5) Response to Incidents and Allegations. The review included an evaluation of the qualifications of the technical staff, a review of the Section’s written procedures and plans, a review of surveillance and inspection reports, and interviews with the principal inspector assigned to the LLRW project.

The former U.S. Ecology LLRW facility is located in Nye County in the Amargosa Desert approximately 105 miles northwest of Las Vegas and 11 miles south of Beatty, Nevada. The site opened in September 1962, and received radioactive waste for burial until December 31, 1992. The site license expired December 31, 1992, but remained in effect until the licensee completed their obligations specified in their license and regulations.

The former licensee, U.S. Ecology, completed the State-approved closure plan to stabilize the site and establish proper security measures on December 30, 1997. The plan was intended to ensure that the LLRW disposed of during the operational phase of the facility continued to remain in suitable, stable, and safe conditions after site closure. Upon completion of the licensee's obligations, the license was transferred to the State of Nevada. The Division assumed all oversight responsibilities and become custodian of the site.

It is noted that this LLRW site pre-dates the waste site standards adopted in 10 CFR 61. The State has the funding and plans to continue surveillance and necessary repair through inspections and environmental monitoring for 100 years. The State currently owns the 80 acre LLRW site and leases a 400 acre buffer zone surrounding the site from the U.S. Bureau of Land Management (BLM). The 80 acres are divided approximately in half. One half was used for LLRW disposal, and the other half for hazardous waste disposal, which is still in operation today. The 400-acre buffer zone is leased by the State from the BLM to ensure no land use. The lease expires in 2007.

### 3.2.1 Technical Staffing and Training

LLRW activities are handled by the Section's staff, under the direction of the Section Supervisor. The basic qualifications for the LLRW program staff are the same as for the radioactive materials program staff, as described in Section 2.1, Technical Staffing and Training.

Because of its proximity to the site, the Las Vegas office performs most of the inspection activities, with the work reviewed by the Section Supervisor in Carson City. In addition to his other technical qualifications, the Radiation Staff Specialist has 23 years experience in regulating the site, both as a reviewer and an inspector. He has taken all of the pertinent courses and workshops given by the NRC and the Environmental Protection Agency (EPA). He, in turn, has trained other Las Vegas technical staff members to conduct inspections. The review team finds this approach acceptable.

### 3.2.2 Status of Inspection Program

Site post-closure activities include collecting environmental water samples and inspecting the conditions at the site (e.g., the condition of the security fence and the trench cap). In addition, the Section continues to monitor for radioactivity in groundwater.

The Section's frequency of inspection for the Beatty site is annually, the same as specified in IMC 2800 and IMC 2401. However, due to public and political interests and the potential for changing conditions, the Section visits the site on a more frequent basis, conducting additional inspections during most visits. The review team finds this approach acceptable.

### 3.2.3 Technical Quality of Inspections

The review team evaluated documentation for all of the on-site inspections and site visits conducted by the Section during the review period. In addition, an inspector was accompanied on a routine inspection of the site by two review team members on February 12, 2003. The Section Supervisor and another Section inspector were also on the accompaniment. During the accompaniment, the inspector demonstrated his thorough knowledge of the site. Inspection activities included a survey of the site perimeter to observe the condition of the site fence and trench cap. In addition, the inspector walked the trench cap to observe signs of erosion and cracks in the cap.

There was clear evidence of erosion, including a one-inch wide crack along the slope of the cap. The Section had requested funds several months ago to have the trench cap repaired. At the time of the review, the request was approved, and the repair work was started at the site. The site has continuous security, seven days per week, 24 hours per day.

The inspection was adequate to assess conditions at the site. The inspection reports were complete, thorough, and reviewed by the supervisor in Carson City. Because of reduced activity and the use of only senior inspectors, supervisory accompaniments specific to the LLRW program are no longer justifiable. The review team finds this approach acceptable.

### 3.2.4 Technical Quality of Licensing Actions

As explained previously, the U.S. Ecology license expired December 31, 1992, but it remained in effect until the licensee completed their obligations set forth in the closure plan. Pursuant to Nevada Administration Code 459.822, the license was transferred to the Nevada State Health Division on December 30, 1997. Only one licensing amendment was completed during the review period which amended the expiration date of the license to November 30, 2009.

The team found through observation and interviews with the Las Vegas staff that applicable guidance documents such as the NUREGs that support 10 CFR 61 are available and used as needed.

### 3.2.5 Response to Incidents and Allegations

There were no incidents or allegations pertaining to the LLRW program during this review period. Accordingly, the review team did not review this sub-indicator.

Based on the IMPEP evaluation criteria for the above five performance areas, the review team recommended and the MRB agreed that Nevada's performance with respect to the indicator, Low-Level Radioactive Waste Disposal Program, was satisfactory.

## 4.0 SUMMARY

The follow-up review team and MRB found Nevada's performance to be satisfactory with recommendations for improvement for the indicators, Technical Staffing and Training, and Status of Materials Inspection Program. Nevada's performance was also found to be satisfactory for the indicators, Response to Incidents and Allegations, Legislation and Program Elements Required for Compatibility, and Low-Level Radioactive Waste Disposal Program.

Accordingly, the follow-up review team recommended and the MRB agreed in a continued finding that the Nevada Agreement State Program is adequate, but needs improvement, and is compatible with NRC's program. Significant improvement was seen in several performance indicators. Most notably, the Status of Materials Inspection Program indicator improved from an unsatisfactory finding to satisfactory with recommendations for improvement. The audit by the Department of Administration and resulting plans to increase fees, add staff, and increase training, addresses the root causes of the program deficiencies. Although the actions have yet to be completed, the management commitment seen by the review team during this follow-up IMPEP review is noteworthy. The review team recommended and the MRB agreed that heightened oversight of the Nevada program be terminated, that the State enter into a period of program monitoring, and that a full IMPEP review of the Nevada program be performed in two years.

Below is a summary list of the new recommendations from this follow-up IMPEP review and the open recommendation from the 2001 IMPEP report:

1. The review team recommends that the State, in accordance with the Department of Administration audit report, increase the radioactive materials program staff to meet program needs. (Section 2.1 of this report)
2. The review team recommends that the State provide training to current and future technical personnel, either by formal course work or equivalent, as prescribed by the Division's training policy. (Section 2.1 of this report)
3. The review team recommends that the Section take appropriate measures to conduct core inspections (including initial inspections) in accordance with the NRC's inspection priority system. (Section 2.2) (Recommendation 1 from the 2001 report)

## **LIST OF APPENDICES**

Appendix A	IMPEP Follow-up Review Team Members
Appendix B	Nevada Organization Charts
Appendix C	Incident Casework Reviews
Appendix D	Heightened Oversight Program Correspondence
Attachment	May 30, 2003 Letter from Yvonne Sylva, Administrator Nevada's Response to Draft IMPEP Report

## APPENDIX A

### IMPEP FOLLOW-UP REVIEW TEAM MEMBERS

<b>Name</b>	<b>Area of Responsibility</b>
James Lynch, Region III	Team Leader Technical Staffing and Training
M. Linda McLean, Region IV	Legislation and Program Elements Required for Compatibility Low-Level Radioactive Waste Disposal Program
Wade Loo, Region II	Response to Incidents and Allegations
Barbara Hamrick, California	Status of Materials Inspection Program

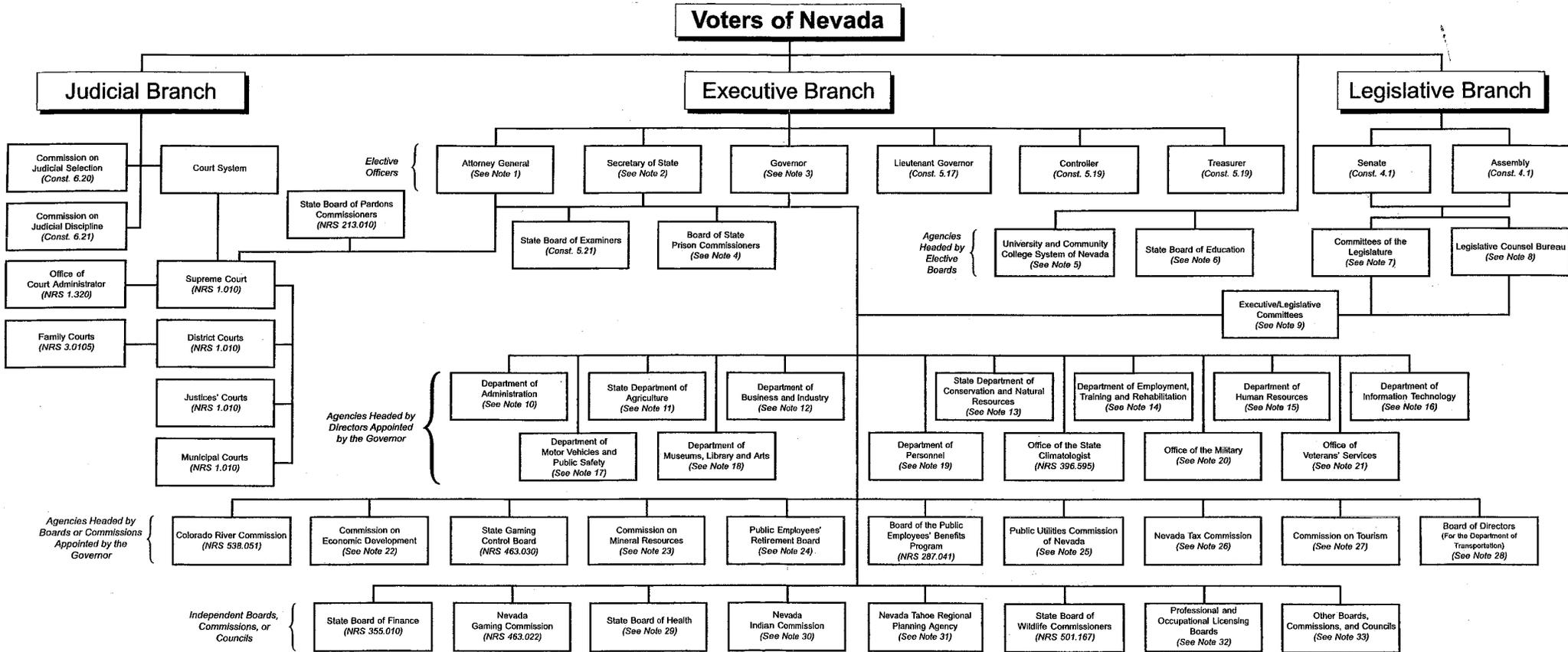
**APPENDIX B**

STATE OF NEVADA  
ORGANIZATIONAL CHARTS

NEVADA STATE GOVERNMENT  
and  
BUREAU OF HEALTH PROTECTION SERVICES

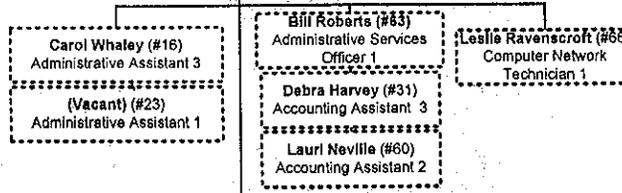
ML031140570

# Nevada State Government



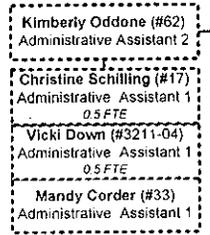
# Bureau of Health Protection Services

March 2003  
 Vacant (#02)  
 Bureau Chief  
 Alex Haartz  
 Acting Bureau Chief



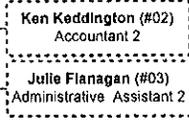
## Public Health Engineering #3194 (Drinking Water, Engineering)

Galen Denlo (#12)  
 Manager 2, Registered Professional Engineer



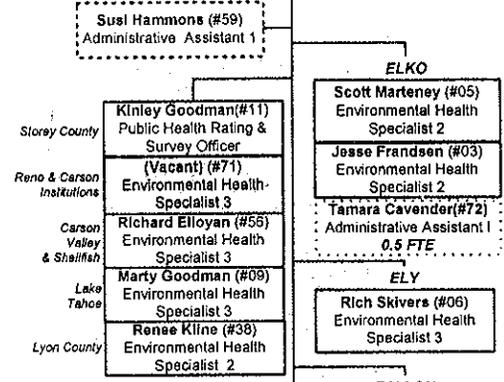
## Drinking Water State Revolving Fund #3211 (Water System Loans)

Adele Basham (#01)  
 Supervisor 4, Registered Professional Engineer



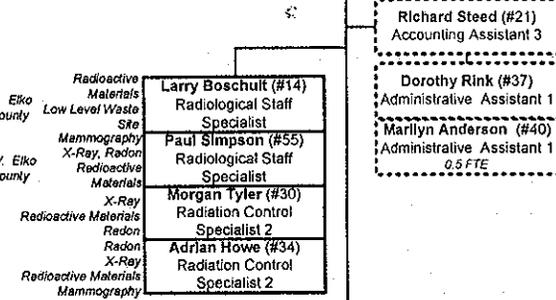
## Environmental Health #3194 (Food, Shellfish, Wastewater Treatment)

James Hogan (#13)  
 Environmental Health Specialist 4

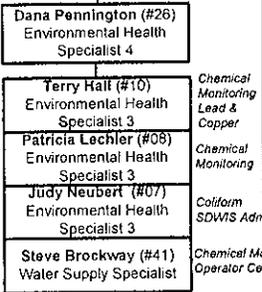


## Radiological Health #3101 & #3152 (NTS, Rad Disposal, Mammography, X-Ray, Radon)

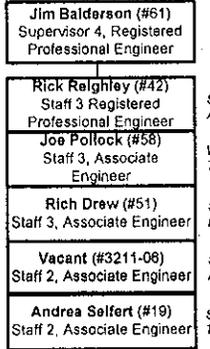
Stanley Marshall (#24)  
 Supervisor Radiological Health



### SDWA Field Activities Engineering



### Public Health Engineering



Larry Rountree (#28) Environmental Health Specialist 3

Bert Bellows (#39) Staff 2, Associate Engineer

Andrew Asgarian (#64) Staff 3, Registered Professional Engineer  
 James Larson (#50) Staff 3, Registered Professional Engineer

Connie Foreman (#44) Administrative Assistant 1

(Vacant) (#56) Administrative Assistant 1 0.5 FTE

Mammography X-Ray  
 Radioactive Materials - DOE Facilities  
 X-Ray Radioactive Materials

## APPENDIX D

### HEIGHTENED OVERSIGHT PROGRAM CORRESPONDENCE

#### Minutes of Bimonthly Conference Calls:

1. April 16, 2002 Minutes (ML021930147)
2. June 13, 2002 Minutes (ML030720295)
3. August 7, 2002 Minutes (ML030710046)
4. October 15, 2002 Minutes (ML023220333)
5. December 18, 2002 Minutes (ML030710137)
6. February 25, 2003 Minutes (ML031130642)

#### Correspondence from Nevada:

1. March 25, 2002, letter from Y. Sylva to P. Lohaus submitting a response to the 2001 IMPEP review including a program improvement plan (ML020880580)
2. May 24, 2002 Progress Report from S. Marshall.
3. July 29, 2002 Progress Report, updated August 2, 2002 from S. Marshall.
4. September 24, 2002 Progress Report, updated October 15, 2002 from S. Marshall.
5. December 11, 2002 Progress Report from S. Marshall.
6. February 18, 2003 Progress Report from S. Marshall.

ATTACHMENT

May 30, 2003 Letter from Yvonne Sylva, Administrator  
Nevada's Response to Draft IMPEP Report

ML031610943

KENNY C. GUINN  
Governor

STATE OF NEVADA

YVONNE SYLVA  
Administrator

MICHAEL J. WILLDEN  
Director



VACANT  
State Health Officer

DEPARTMENT OF HUMAN RESOURCES  
HEALTH DIVISION

505 E. King Street, Room 201  
Carson City, Nevada 89701-4797  
Telephone: (775) 684-4200 • Fax: (775) 684-4211

May 30, 2003

Paul H. Lohaus, Director  
Office of State Tribal Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Re: State Response to Nevada IMPEP Draft Report Dated May 9, 2003

Dear Mr. Lohaus:

Please find attached the State Health Division response to the review of the Nevada Agreement State Program conducted on April 7, 2003, through April 10, 2003.

If you have any questions, please feel free to contact me at (775) 684-4200.

Sincerely,

Yvonne Sylva  
Administrator

Enclosure

cc: Alex Haartz, Deputy Administrator  
Amy Roukie, Chief, Bureau of Health Protection Services  
Stan Marshall, Supervisor, Radiological Health Section  
Bob Loux, Director, Nevada Agency for Nuclear Projects

03 JUN 10 AM 10:04

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Building and Strengthening Public Health through Communication and Partnerships

State agency responses to recommendations on draft report page 13:

Recommendation 1: The review team recommends that the state, in accordance with the Department of Administration audit report, increase the radioactive materials program staff to meet program needs.

Response: Additional staffing is being considered as part of the agency response to the Nevada Department of Administration audit findings and recent draft IMPEP report.

Funding for additional staffing and other necessary resources is also part of this review process. We anticipate that radioactive material license fee increases will be presented for adoption at the October 24, 2003 meeting of the Nevada State Board of Health.

Increased spending authority will then be obtained and steps will be taken through the Nevada Department of Personnel to begin the process of creating new technical positions for this program.

Recommendation 2: The review team recommends that the state provide training to current and future technical personnel, either by formal course or equivalent, as prescribed by the Division's training policy.

Response: The review to determine appropriate increases of staff and other resources will include funding for staff training on an ongoing basis.

Until such time that funding is obtained for staff training, we will take steps to consider less expensive, even no-cost training options that might be appropriate and available.

An example of low-cost alternatives to attending NRC courses is hosting or co-hosting an NRC training course in Nevada or somewhere on the west coast that is more convenient and less costly for Nevada staff participation than the traditional training sites in eastern states. Staff is collecting information about NRC course opportunities particularly those considered "mobile" by NRC program staff; that is, possibly conducted in non-traditional training sites such as an Agreement State with little/no funding to attend training at the traditional training locations.

An example of no-cost training that we are implementing is program management efforts to contact Novoste and GliaSite vendors to provide in-house technical orientations for these radiopharmaceutical products. Although Nevada licensees using these products are few or nonexistent, the vendors appear cooperative at this time to visit our office in the near future to conduct demonstrations and staff discussions about the products.

A short technical staff meeting or scheduling the vendors during another program activity, may also be considered if the vendors make an office visit in the near future. We anticipate completing such radiopharmaceutical orientations for current technical staff by September 30, 2003.

Alternatives to attendance at the traditional NRC training courses will continue to be explored and implemented. We will continue to negotiate fee increases to support attendance at traditional training courses in the future.

Recommendation 3: The review team recommends that the section take appropriate measures to conduct core inspections (including initial inspections) in accordance with the NRC's inspection priority system.

Response: Program management has had discussions with senior staff to discuss a plan to complete inspections of the two remaining overdue licensees.

Staff has provided an inspection schedule including individual assignments that will accomplish elimination of the overdue inspections by June 30, 2003.

Direct assignment of inspections will be made to specific personnel in an effort to better implement agency policy to minimize overdue inspections.