October 30, 2013

Mr. Mike Willden, Director Nevada Department of Health and Human Services 4126 Technology Way, Room 100 Carson City, NV 89706

Dear Mr. Willden:

On September 19, 2013, 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 the Nevada program adequate to protect public health and safety, and compatible with the U.S. Nuclear Regulatory Commission's program.

Section 5.0, page 11, of the enclosed final report contains a summary of the IMPEP team's findings. All performance indicators reviewed were found satisfactory, the highest rating. The review team made no new recommendations in regard to program performance by the Nevada Agreement State Program during this review, but kept two recommendations open from the 2009 review, and closed two. Based on the results of the current IMPEP review, the next full review of the Nevada Agreement State Program will take place in approximately 4 years, with a periodic meeting tentatively scheduled for July 2015.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

/**RA**/

Michael F. Weber Deputy Executive Director for Materials, Waste, Research, State, Tribal and Compliance Programs Office of the Executive Director for Operations

Enclosure: Nevada Final IMPEP Report

cc w/encl: Jim McNees, Alabama Organization of Agreement States Liaison to the MRB

> Karen K. Beckley, Manager Radiation Control Program

Mr. Mike Willden, Director Nevada Department of Health and Human Services 4126 Technology Way, Room 100 Carson City, NV 89706

Dear Mr. Willden:

On September 19, 2013, 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 the Nevada program adequate to protect public health and safety, and compatible with the U.S. Nuclear Regulatory Commission's program.

Section 5.0, page 11, of the enclosed final report contains a summary of the IMPEP team's findings. All performance indicators reviewed were found satisfactory, the highest rating. The review team made no new recommendations in regard to program performance by the Nevada Agreement State Program during this review, but kept two recommendations open from the 2009 review, and closed two. Based on the results of the current IMPEP review, the next full review of the Nevada Agreement State Program will take place in approximately 4 years, with a periodic meeting tentatively scheduled for July 2015.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

/**RA**/

Michael F. Weber Deputy Executive Director for Materials, Waste, Research, State, Tribal and Compliance Programs Office of the Executive Director for Operations

Enclosure: Nevada Final IMPEP Report

cc w/encl: Jim McNees, Alabama Organization of Agreement States Liaison to the MRB

> Karen K. Beckley, Manager Radiation Control Program

DISTRIBUTION: See next page

OFC	Region III: TL	ASPB/MSSA	ASPB:BC	MSSA: D	TechEd	FSME:D	EDO/DEDMRT
NAME	JLynch via email	LDimmick	DWhite	PHenderson	CPoland	BHolian	MWeber
DATE	10/01/13	09/30/13	10/01/13	10/21/13	10/21/13	10/24/13	10/30/13

ML13273A127

OFFICIAL RECORD COPY

Letter to M. Willden from Michael F. Weber dated October 30, 2013

SUBJECT: NEVADA FY2013 FINAL IMPEP REPORT

DISTRIBUTION: (SP08) RidsEdoMailCenter JFoster, OEDO RidsFsmeOd RidsOgcMailCenter TCampbell, OGC DLew, RI ABoland, RIII RidsRgn4MailCenter AVegel, RIV RTorres, RIV BTharakan, RIV RidsSecyCorrespondenceMailCenter RidsFsmeMssa RErickson, RIV/RSAO OMasnykBailey, RI AJacobson, MD JWeil, OCA (2 copies)

Chairman Macfarlane Commissioner Svinicki Commissioner Apostolakis Commissioner Magwood Commissioner Ostendorff SECY



INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE NEVADA AGREEMENT STATE PROGRAM

July 15–19, 2013

FINAL REPORT

Enclosure

EXECUTIVE SUMMARY

This report presents the results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Nevada Agreement State Program. The review was conducted during the period of July 15–19, 2013, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Maryland.

Based on the results of this review, Nevada's performance was found satisfactory for all performance indicators reviewed: Technical Staffing and Training, Status of Materials Inspection Program, Technical Quality of Inspections, Technical Quality of Licensing Actions, Technical Quality of Incident and Allegation Activities and Compatibility Requirements. In addition, it was determined at the time of the Management Review Board (MRB) meeting that the review team should consider a finding be made regarding the non-common indicators Sealed Source and Device Program and Low-Level Radioactive Waste Program. The team reviewed these indicators and determined that the State was performing oversight activities appropriate to the limited scope of these indicators. The review team agreed and recommended to the MRB that the State be found satisfactory for the indicators Sealed Source and Low-Level Radioactive Waste Program.

The review team did not make any new recommendations and determined that two recommendations from the 2009 IMPEP review should be closed and that the two remaining recommendations regarding the development and implementation of a data tracking system, and the timely promulgation of regulations, should remain open.

Accordingly, the review team recommended, and the MRB agreed, that the Nevada Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. The review team recommended, and the MRB agreed, that the next IMPEP review take place in approximately four years.

1.0 INTRODUCTION

This report presents the results of the review of the Nevada Agreement State Program. The review was conducted during the period of July 15–19, 2013, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Maryland. 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 Final General Statement of Policy," published in the *Federal Register* on October 16, 1997, and NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated February 26, 2004. Preliminary results of the review, which covered the period of June 6, 2009 to July 19, 2013, were discussed with Nevada managers on the last day of the review.

A draft of this report was provided to Nevada for factual comment on August 15, 2013. The State responded by letter dated September 13, 2013. A copy of the State's response is included as an Attachment to this report. A Management Review Board (MRB) met on September 19, 2013, to consider the proposed final report. The MRB found the Nevada Agreement State Program adequate to protect public health and safety, and compatible with the NRC's program.

The Nevada Agreement State Program is administered by the Radiation Control Program (the Program). The Program is part of the Bureau of Health (the Bureau) aligned under the Division of Public and Behavior Health (the Division) in the Department of Health and Human Services (the Department). Organization charts for the Department, Division, and Program are included as Appendix B.

During the review period, the Nevada Radiation Control Program was briefly reorganized. In October 2012, Division administration decided to split the radioactive materials and radiation machines programs, with the materials program going to another Division. In March 2013, after further consideration of reorganization, a decision was made by the Division Administrator to restore the Program to its original structure. The review team did not identify any negative impact on performance during this five-month reorganization.

At the time of the review, the Nevada Agreement State Program regulated 239 specific licenses authorizing possession and use of radioactive materials. The review focused on the radioactive 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.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Program on March 21, 2013. The Program provided its response to the questionnaire on June 28, 2013. A copy of the questionnaire response can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML13183A116.

The review team's general approach for conduct of this review consisted of (1) examination of the Program's response to the questionnaire, (2) review of applicable Nevada statutes and regulations, (3) analysis of quantitative information from the Program's database, (4) technical review of selected regulatory actions, (5) field accompaniments of three inspectors, and

(6) interviews with staff and managers. The review team evaluated the information gathered against the established criteria for each common and the applicable non-common performance indicator and made a preliminary assessment of the Nevada Agreement State Program's performance.

Section 2.0 of this report covers the State's actions in response to recommendations made during previous reviews.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on June 5, 2009, the review team made four recommendations regarding the Nevada Agreement State Program's performance. The status of the recommendations is as follows:

1. "The review team recommends that the Program revise their inspection procedures and provide training to implement a policy for timely and orderly license termination of licensed materials not in use. (Section 3.3 of the 2005 IMPEP Report)"

Current Status: The Program noted that this issue was also identified by a Nevada legislative audit as an item needing correction. In response to both the NRC and the legislative audit, the Program developed and implemented a procedure to ensure that those licenses that need to be terminated are terminated in a timely fashion. The staff has been trained and understands the procedure. The review team evaluated licensing files for five license terminations (Appendix D) and found no issues with timely handling of terminations. The Program has also strengthened its enforcement procedure regarding license termination. This recommendation is closed.

2. "The review team recommends that the Program develop, implement, and maintain a reliable and comprehensive licensing and inspection database that serves as an effective and efficient planning, tracking, and management tool. (Section 3.4 of the 2005 IMPEP Report)"

Current Status: The Program noted that development of a reliable database is still a work in progress, but it is moving forward. The Program secured a copy of the Oregon database, made changes specific to its Program, and submitted it to the IT Department for approval. The Program was unable to obtain funding during fiscal year 2013 to complete this project but, if funding is available in fiscal year 2014, the database will be completed and put into use. In the interim, the Program modified its current database, implemented new quality assurance procedures for it, and continues to use it. The Program found that while not perfect, the current database is now more accurate. This recommendation remains open.

3. "The review team recommends that the State submit proposed and final regulations to the NRC for compatibility reviews. (Section 4.1.2)"

Current Status: Previously the Program believed it was not to send regulations to the NRC for final review until the regulations had been codified, a practice that could take several years for the Legislative Council Bureau to complete. This was a

misunderstanding which has been corrected. The Program now sends regulation packages for initial and final reviews in a timely manner. This recommendation is closed.

4. "The review team recommends that the State develop all required regulations within the required timeframe. (Section 4.1.2)"

Current Status: Over the previous review period, the State was found to be significantly behind on regulation development. Over the current review period it was noted that while the State has made significant progress in rule development, the State continues to work towards becoming timely in its rule development process. Since the last review, the State also added an additional step in the rule development process, adding to the process time. The review team determined it appropriate to leave this recommendation open until the State demonstrates sustained performance in this area. This recommendation remains open.

3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC regional and Agreement State radioactive materials 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) Technical Quality of Incident and Allegation Activities.

3.1 Technical Staffing and Training

Considerations central to the evaluation of this indicator include the Program'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 Program's questionnaire response relative to this indicator, interviewed Program managers and staff, reviewed job descriptions and training records, and considered possible workload backlogs.

The Program, headed by the Program Manager, regulates approximately 239 specific licenses with 6.7 technical staff full-time equivalents (FTE), which is considered fully staffed. The Program has two offices, in Carson City and Las Vegas. There are two supervisors in the Carson City office. One supervisor manages radioactive materials licensing and inspection activities for both offices; the other supervisor manages incident response and special project activities for both offices. In addition, there is one supervisor in the Las Vegas office who manages machine-based radiation activities for both offices.

Four staff members left the Program, and three staff members joined the Program during the review period. One position was not filled, lowering the total technical FTE from 7.7 to 6.7. The Program Manager stated that the position is not likely to be filled under current economic conditions, but that the current staffing level is adequate to maintain a quality program. The new staff members have a wide range of technical experience and education, which brings depth of knowledge to the Program. Due to State budget difficulties, all employees are subject to a 48-hour furlough during the year. The review team determined that staffing levels were adequate for the Agreement State Program.

The Program has a documented training and qualification program for technical staff members that is consistent with the NRC/Organization of Agreement States Training Working Group Report and NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area." The review team suggested that the Program use the recently issued IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Management Programs," with structured qualification journals.

Staff members are assigned increasingly complex duties as they progress through the qualification process. The review team noted that several staff members had not attended required training courses, such as industrial radiography, brachytherapy, and well logging. Training in these areas would provide the Program additional flexibility in work assignments. The employees and supervisors were fully aware of the training needs. The review team concluded that the Program's training program is adequate to carry out its regulatory duties.

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, be found satisfactory.

3.2 Status of Materials Inspection Program

The review team focused on five factors while reviewing this indicator: inspection frequency, overdue inspections, initial inspections of new licenses, timely dispatch of inspection findings to licensees, and performance of reciprocity inspections. The review team's evaluation was based on the Program's questionnaire response relative to this indicator, data gathered from the Program's database, examination of completed inspection casework, and interviews with managers and staff.

The review team verified that Nevada's inspection frequencies for all types of radioactive material licenses are at least as frequent as license types listed in IMC 2800, "Materials Inspection Program." The review team confirmed the Program is conducting Increased Controls inspections in conjunction with the routine health and safety inspections.

The review team found that the Program conducted a total of 255 inspections over the review period. Of those, 110 were identified as Priority 1, 2, and 3 inspections. None were conducted overdue. The Program also conducted a total of 39 initial inspections over the review period. None were conducted overdue. Additionally, the Program performed 214 followup inspections over the review period. When the Program issues violations, the Program performs a followup inspection of the issues identified during the previous inspection to ensure that corrective actions have been implemented. This followup inspection is conducted within one year. Followup inspections do not alter the inspection intervals assigned to each licensee. Overall, the review team found that the Program performed no inspections overdue during the review period.

The review team evaluated the Program's timeliness in providing inspection findings to licensees. The majority of the Program's routine inspections were documented with the issuance of a NV-591 Form, "Inspection Findings and Licensee Acknowledgement Form," and left with the licensee at the completion of the on-site inspection. The NV-591 form is used for clear inspections and for those resulting in violations. If a NV-591 form cannot be issued in the

field, inspection findings are transmitted by letter to the licensee from the Program office. A sampling of 23 inspection reports found that none of the inspection findings were communicated to the licensees beyond the Program's goal of 30 days following the inspection.

The review team found that over the review period, the Program issued a total of 163 reciprocity permits of which 52 were candidates for inspection based upon the criteria found in IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating under 10 CFR 150.20". The review team determined that the Program exceeded the NRC's criteria of inspecting 20 percent of candidate licensees operating under reciprocity in all but one year (2010) covered by the review period. The review team found that in 2010, the Program was in a period of transition and was down two inspectors. Program managers made a deliberate decision to focus their limited staff resources on licensing and inspection of Nevada licensees during that year, resulting in only 8 percent of reciprocity candidate licensees being inspected.

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, be found satisfactory.

3.3 <u>Technical Quality of Inspections</u>

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed inspectors for 23 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by six Bureau inspectors and covered inspections of various license types: academic broad scope, medical-therapy, medical-diagnostic, fixed and portable gauges, industrial radiography, self-shielded irradiators, cyclotron, nuclear pharmacy, well-logging, and Increased Security Controls for Large Quantities of Radioactive Materials (Increased Controls). Appendix C lists the inspection casework files reviewed, as well as the results of the inspector accompaniments.

Based on the evaluation of casework, the review team noted that inspections covered all aspects of the licensee's radiation safety programs. The review team found that inspection reports were thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that a licensee's performance with respect to health and safety was acceptable. The documentation supported violations, recommendations made to licensees, unresolved safety issues, the effectiveness of corrective actions taken to resolve previous violations and discussions held with licensees during exit interviews.

The inspection procedures utilized by the Program are consistent with the inspection guidance outlined in IMC 2800. An inspection report is completed by the inspector which is then reviewed and signed by the Supervisor and then by the Program Manager. Supervisory accompaniments were conducted annually for all inspectors.

The review team determined that the inspection findings were appropriate and that prompt regulatory actions were taken, as necessary. Inspection findings were clearly stated and documented in the reports issued to the licensees on the Inspection Findings and Licensee Acknowledgement Form at the conclusion of the inspection or an appropriate letter detailing the results of the inspection within 30-days. When the Program issues a form or a letter describing

The review team noted that the Program has an adequate supply of survey instruments to support their inspection program. Appropriate, calibrated survey instruments, including Geiger-Mueller (GM) meters, scintillation detectors, ion chambers, micro-R meters, portable multi-channel analyzers and neutron detectors were observed to be operable and available. Instruments are calibrated at least annually, or as needed, by a consultant with National Institute of Standards and Technology traceable sources. The Program uses a spread sheet to track each instrument, its current location, and next calibration date.

The review team accompanied three of the Program's inspectors in March 2013. The inspectors conducted inspections at a hospital performing both diagnostic and therapy procedures and at two industrial radiography facilities. Two of the inspections included a review of the licensees' implementation of the Increased Controls requirements. Appendix C lists the inspector accompaniments. The inspectors demonstrated performance-based inspection techniques and knowledge of the regulations. The inspectors were well trained, prepared for the inspections, and thorough in their audits of the licensees' radiation safety and security programs. The inspectors conducted interviews with appropriate personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. The inspectors held entrance and exit meetings with the appropriate level of licensee management. The review team determined that the inspections were adequate to assess radiological health, safety, and security at the licenseed facilities.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

3.4 <u>Technical Quality of Licensing Actions</u>

The review team examined completed licensing casework and interviewed license reviewers for 22 specific licensing actions. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequacy of facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality. The casework was also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, peer/supervisory review, and proper signatures.

The licensing casework was selected to provide a representative sample of licensing actions completed during the review period. Licensing actions selected for evaluation included 1 new license, 5 renewals, 5 decommissioning or termination actions, and 11 amendments. Files reviewed included a cross-section of license types: broad scope, medical diagnostic and therapy including, high dose rate remote afterloader, radioiodine therapy, temporary/permanent implant brachytherapy, gamma knife, industrial radiography, research and development, nuclear pharmacy, portable and fixed gauges, manufacturers, and self-shielded irradiators. The casework sample represented work from seven license reviewers. A listing of the licensing

casework evaluated is provided in Appendix D.

The review team found that the licensing actions were thorough, complete, consistent, and of high quality with health, safety, and security issues properly addressed. License tie-down conditions were stated clearly and were supported by information contained in the file. Deficiency letters clearly stated regulatory positions, were used at the proper time, and identified substantive deficiencies in the licensees' documents. Terminated licensing actions were well documented, showing appropriate transfer and survey records. License reviewers use the Bureau's licensing guides and/or the NUREG-1556 series guidance documents, policies, checklists, and standard license conditions specific to the type of licensing actions to ensure consistency in licenses.

Licensing actions are assigned a number and tracked on a spreadsheet. The licensing and inspection supervisor assigns licensing actions based on the reviewer's qualifications. Licenses are subjected to peer and supervisory reviews before being signed out by the Program manager. The Program continues to hand deliver and review with the licensee all new licenses and licenses with a change of location or Radiation Safety Officer. This action serves to ensure that licensees have adequate radiation safety and security programs in place and serves to meet the objective of a pre-licensing visit.

Based on the casework evaluated, the review team concluded that the licensing actions were of high quality and consistent with the Branch licensing procedures and NUREG-1556 guidance documents, the State's regulations, and good health physics practices. The review team attributed the consistent use of templates and quality assurance reviews to the overall quality noted in the casework reviews.

The review team examined the Program's licensing practices regarding the Increased Controls and Fingerprinting Orders. The review team noted that the State uses legally binding license conditions that meet the criteria for implementing the Increased Controls Orders, including fingerprinting, as appropriate. The review team analyzed the Program's methodology for identifying those licenses and found the rationale was thorough and accurate. The review team confirmed that license reviewers evaluated new license applications and license amendments using the same criteria. The Program requires full implementation of the Increased Controls prior to issuance of a new license or license amendment that meets the established criteria.

The review team examined the Program's implementation of its procedure for the control of sensitive information. This procedure addresses the identification, marking, control, handling, preparation, transportation, transmission, and destruction of documents that contain sensitive information related to the Increased Controls. The review team noted that the Program controls access to all of its licensing and inspection files through the use of safes and cipher locks.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

3.5 <u>Technical Quality of Incident and Allegation Activities</u>

In evaluating the effectiveness of the Program's actions in responding to incidents and

allegations, the review team examined the Program's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Nevada in the Nuclear Material Events Database (NMED) against those contained in the Program's files, and evaluated the casework for 13 radioactive materials incidents. A list of the incident casework examined may be found in Appendix E. The review team also evaluated the Program's response to eight allegations involving radioactive materials, including two allegations referred to the State by the NRC during the review period.

The incidents selected for review included the following categories: lost/stolen radioactive material, potential overexposure, medical event, and equipment failure. The review team determined that the Program'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 Program dispatched inspectors for on-site investigations in six of the cases reviewed and took suitable enforcement and followup actions. If the incident met the reportability thresholds, as established in the Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-300 "Reporting Material Events," the State notified the NRC Headquarters Operations Center and entered the information into NMED, in a prompt manner.

An additional incident occurred during the onsite review, and an IMPEP team member accompanied a Program inspector on the response to a potential public health and safety incident. The Local Law Enforcement Agency identified what appeared to be a contaminated area at a public beach. The response by the Program was prompt and well-coordinated. The inspector attributed the elevated radiation levels to naturally occurring potassium-40.

The review team examined the Program's implementation of its incident and allegation processes, including written procedures for handling allegations and incident response, file documentation, notification of incidents to the NRC Headquarters Operations Center, and the use of NMED software. When notification of an incident or an allegation is received, the Program Manager and supervisors determine the appropriate level of initial response.

In evaluating the effectiveness of the Program's response to allegations, the review team evaluated the completed casework for eight allegations, including two that NRC referred to the State during the review period. The review team concluded that the Program took prompt and appropriate actions in response to concerns raised. The review team noted that the Program documented the investigations of concerns and retained all necessary documentation to appropriately close the allegations. The Program notified the concerned individuals of the conclusion of its investigations. The review team determined that the Program adequately protected the identity of concerned individuals.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Compatibility Requirements, (2) Sealed Source and Device Evaluation Program,

(3) Low-Level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. The NRC's Agreement with Nevada does not relinquish authority to regulate a uranium recovery program, so only the first three non-common performance indicators were applicable to this review.

4.1 <u>Compatibility Requirements</u>

4.1.1 Legislation

Nevada became an Agreement State in 1972. Legislative authority to create an agency and enter into an Agreement with the NRC is granted in Nevada Revised Statutes (NRS) Section 459. The Nevada State Health Division is designated as the State's radiation control agency. Another NRS section that affects the Agreement State program includes NRS 439, "Public Health Administrative Procedures." The review team noted that no significant legislation affecting the radiation control program was passed since the previous review.

4.1.2 Program Elements Required for Compatibility

The Nevada Radiation Control Program regulations, found in Chapter 459 of the Nevada Administrative Code, apply to all ionizing radiation, whether emitted from radionuclides or devices. Nevada requires a license for possession and use of all radioactive material. The review team noted that the State's rules and regulations are not subject to "sunset" provisions. The State may adopt other agency's regulations by reference and has the authority to issue legally binding requirements (e.g., license conditions) in lieu of regulations until compatible regulations become effective.

The review team examined the State's process for adopting regulations. The Program informed the review team that in 2011, an additional step was added to the regulation development process. After drafting regulations, in addition to sending a copy to the NRC for review, the Program now sends regulations to the Division Deputy Administrator who edits the regulations. Regulations are then sent to the Legislative Council Bureau (LCB) for review and comment. The LCB is a legal office within Nevada that first reviews and then later codifies regulations for all Nevada regulatory agencies. When the overall process is complete (including resolution of NRC comments), the adopted regulations are sent back to the LCB for codification. Once codified, the newly formatted regulations are sent to the Secretary of State's Office for filing. After approximately 30 to 45 days the regulations become final. The State can adopt some NRC regulations by reference which speeds up the adoption process significantly.

During the review period, Nevada submitted 16 final regulation amendments to NRC for a compatibility review. Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally binding requirements no later than 3 years after the effective date of NRC's regulations. A total of 15 of the 16 final amendments were overdue for State adoption at the time of submission. The overdue amendments were submitted early in the review period, 2010 and 2011, and were remnants of the 2009 IMPEP review. The NRC's compatibility review of the final amendments resulted in no comments.

• "Medical Use of Byproduct Material – Authorized User Clarification," 10 CFR Part 35 (74 FR 33901), that was due for Agreement State implementation on September 28, 2012.

The Program is drafting final regulations for this amendment but the rule package is currently pending in the Division. The review team noted that the State had made significant progress in the promulgation of regulations since the last IMPEP review, but still faced challenges in negotiating the arduous State regulatory process.

A complete list of upcoming regulation amendments that will need to be addressed in the future may be found on the NRC website at the following address: <u>http://nrc-stp.ornl.gov/rss_regamendents.html</u>.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Compatibility Requirements, be found satisfactory.

4.2 <u>Sealed Source and Device Evaluation Program</u>

There are currently two manufacturers/distributors licensed by the Program. One of the licensees assembles and distributes generally licensed devices in accordance with sealed source and device (SS&D) registry certificates issued by another Agreement State. The second licensee manufactures gun and bow sights in accordance with an NRC-issued SS&D registry certificate and distributes them under an NRC exempt distribution license.

During a previous IMPEP review, the State indicated that it planned to return its SS&D authority to the NRC; however, this plan did not receive management approval. At the time of the review, the Program had no staff members qualified to perform safety evaluations of SS&D applications and amendments. The Program entered into an agreement with the State of California whereby California's qualified SS&D reviewers will conduct product safety evaluations for the State of Nevada.

During the review period, the Program issued one SS&D certificate to a now terminated licensee. The licensee distributed generally licensed exit signs. Technical evaluation of the certificate was performed by California SS&D reviewers and was signed by the Program Manager and one of the supervisors. Issuance of the sheet was performed in close coordination with FSME.

During MRB deliberations, the review team acknowledged the Program's oversight of its Sealed Source Device Evaluation Program and found the Program's oversight adequate. The team acknowledged the review included an evaluation of the California Agreement State Program's performance of this indicator on its last IMPEP to ensure that the SS&D reviews were conducted by qualified reviewers and that the Nevada Program manager maintained oversight of the registry reviews. The MRB directed the report be revised to include a finding for the indicator. Therefore, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Sealed Source Device Evaluation Program, be found satisfactory.

4.3 Low-Level Radioactive Waste Disposal Program

The former U.S. Ecology low-level radioactive waste disposal facility, located in Nye County, opened in 1962 and received radioactive waste for burial until 1992. The former licensee completed the State-approved closure plan and the license was subsequently transferred to the State of Nevada. The Nevada State Health Division assumed all oversight responsibilities and became custodian of the site. The site has continuous security. One of the Program supervisors is named as Radiation Safety Officer on the license.

The review team evaluated Nevada's oversight of the site, and determined that the Program performs quarterly visits to the site for a visual examination of the trench cap and to conduct radiation surveys. The review team's evaluation of the quarterly visit reports identified an adequate analysis of site radiological hazards.

During MRB deliberations, the review team acknowledged the closed low-level waste disposal site is under custodial care of the Nevada Agreement State Program and found the Program's oversight adequate. The team acknowledged the Program is performing comprehensive audits and surveys for the appropriate activity at this site. The MRB directed the report be revised to include a finding for the indicator. Therefore, the review team recommended, and the MRB agreed, that Nevada's performance with respect to the indicator, Low-Level Radioactive Waste Disposal Program, be found satisfactory.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, Nevada's performance was found satisfactory for all of the performance indicators reviewed. The review team did not make any new recommendations and determined that two recommendations from the 2009 IMPEP review should be closed. The review team determined that the other two recommendations from the 2009 IMPEP review should remain open in order to monitor pending enhancements of the data tracking system and the regulation promulgation process.

Accordingly, the review team recommended, and the MRB agreed, that the Nevada Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. Based on the results of the current IMPEP review, the review team recommended, and the MRB agreed, that the next full IMPEP review take place in approximately four years.

Below are the open recommendations, as mentioned in the report, for continued implementation by the State:

RECOMMENDATIONS

- 1. The review team recommends that the Program develop, implement, and maintain a reliable and comprehensive licensing and inspection database that serves as an effective and efficient planning, tracking, and management tool. (Section 2.0)
- 2. The review team recommends that the State develop all required regulations within the required timeframe. (Section 2.0)

LIST OF APPENDICES

- Appendix A IMPEP Review Team Members
- Appendix B Nevada 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		
James Lynch, Region III	Team Leader Technical Staffing and Training Inspection Accompaniments Sealed Source and Device Evaluation Program [*] Low-Level Radioactive Waste Review [*]		
Randy Erickson, Region IV	Status of Materials Inspection Program Compatibility Requirements		
Alan Jacobson, Maryland	Technical Quality of Inspections		
Orysia Masnyk Bailey, Region I	Technical Quality of Licensing Actions Technical Quality of Incident and Allegation Activities		

^{*} The Sealed Source and Device Evaluation Program was limited scope review. The team evaluated the Program's oversight activities. Product safety evaluations are contracted to another Agreement State Program.

^{*} The Low-Level Radioactive Waste Review was limited scope review. The team evaluated the Program's oversight activities for a closed disposal facility.

APPENDIX B

NEVADA ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML13211A345

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1 Licensee: Sierra Vista Surgery Center Inspection Type: Routine, Unannounced Inspection Date: 2/15/13 File No.: 2 Licensee: Desert Radiologist Inspection Type: Routine, Unannounced Inspection Date: 10/4/12 File No.: 3 Licensee: University of Nevada - Las Vegas Inspection Type: Routine, Unannounced Inspection Date: 3/19/13 File No.: 4 Licensee: North Vista Hospital Inspection Type: Routine, Unannounced Inspection Date: 12/8/10 File No.: 5 Licensee: United Blood Services Inspection Type: Routine, Unannounced Inspection Date: 4/5/12 File No.: 6 Licensee: Baker Hughes Inspection Type: Routine, Unannounced Inspection Date: 5/12/12 File No.: 7 Licensee: Carson Tahoe Regional Medical Center Inspection Type: Routine, Unannounced Inspection Date: 4/13/11 File No.: 8 Licensee: Black Eagle Consulting Inspection Type: Routine, Unannounced Inspection Date: 4/15/13

License No.: 16-12-0648-01 Priority: 3 Inspector: JB

License No.: 03-12-0327-01 Priority: 3 Inspector: TS

License No.: 03-13-0305-01 Priority: 5 Inspector: JB

License No.: 03-12-0291-01 Priority: 3 Inspector: TS

License No.: 16-11-0300-01 Priority: 5 Inspectors: AH, EM

License No.: 00-11-0659-01 Priority: 3 Inspector: TM

License No.: 01-12-0032-01 Priority: 3 Inspector: TM

License No.: 00-11-0409-02 Priority: 1 Inspector: JB Nevada Final IMPEP Report Inspection Casework Reviews

File No.: 9 Licensee: Western Technologies Inspection Type: Routine, Unannounced Inspection Date: 3/6/13

File No.: 10 Licensee: Aztech Inspection and Testing Inspection Type: Routine, Unannounced Inspection Date: 8/15/12

File No.: 11 Licensee: Black Eagle Consulting Inspection Type: Routine, Unannounced Inspection Date: 5/11/12

File No. 12 Licensee: Bigelow Aerospace Inspection Type: Routine, Unannounced Inspection Date: 8/24/10

File No. 13 Licensee: Davis Laboratories Inspection Type: Routine, Unannounced Inspection Date: 8/12/12

File No.: 14 Licensee: Barrick Goldstrike Mines Inspection Type: Routine, Unannounced Inspection Date: 9/22/12

File No.: 15 Licensee: Urology Reno Inspection Type: Routine, Unannounced Inspection Date: 4/30/12

File No.: 16 Licensee: St. Mary's Regional Medical Center Inspection Type: Routine, Unannounced Inspection Date: 2/15/12

File No.: 17 Licensee: 21st Century Oncology Inspection Type: Routine, Unannounced Inspection Date: 6/29/10 License No.: 00-11-0019-01 Priority: 1 Inspector: JF

License No.: 00-11-0482-02 Priority: 1 Inspectors: TS, JF

License No.: 00-11-0409-02 Priority: 1 Inspector: TM

License No.: 03-11-0622-01 Priority: 2 Inspector: TS

License No.: 00-11-0113-01 Priority: 1 Inspector: TS

License No.: 05-11-0276-01 Priority: 5 Inspector: TM

License No.: 16-12-0644-01 Priority: 2 Inspector: TM

License No.: 16-12-0244-02 Priority: 3 Inspector: TM

License No.: 03-12-0429-01 Priority: 2 Inspector: TS Nevada Final IMPEP Report Inspection Casework Reviews

File No.: 18 Licensee: Cardinal Health Inspection Type: Routine, Unannounced Inspection Date: 5/23/13

File No.: 19 Licensee: University Medical Center Inspection Type: Routine, Unannounced Inspection Date: 6/8/11

File No.: 20 Licensee: Sunrise Medical Center Inspection Type: Routine, Unannounced Inspection Date: 12/20/11

File No.: 21 Licensee: Newmont Mining Inspection Type: Routine, Unannounced Inspection Date: 4/6/10

File No.: 22 Licensee: PETNET Solutions Inspection Type: Routine, Unannounced Inspection Date: 2/15/12

File No.: 23 Licensee: PETNET Solutions Inspection Type: Routine, Unannounced Inspection Date: 2/15/12 License No.: 03-11-0332-02 Priority: 2 Inspector: JF

License No.: 03-12-0034-03 Priority: 2 Inspectors: TS, TM

License No.: 03-12-0395-02 Priority: 2 Inspectors: JF, TS

License No.: 08-11-0364-01 Priority: 5 Inspector: TM

License No.: 03-11-0468-01 Priority: 2 Inspector: TS

License No.: 03-11-0468-02 Priority: 2 Inspector: TS

INSPECTOR ACCOMPANIMENTS

The following inspector accompaniments were performed prior to the on-site IMPEP review:

Accompaniment No.: 1 Licensee: Sunrise Hospital and Medical Center Inspection Type: Routine, Unannounced Inspection Date: 3/4/13

Accompaniment No.: 2 Licensee: Davis Laboratories, Inc. Inspection Type: Routine, Unannounced Inspection Date: 3/5/13 License No.: 03-12-0325-01 Priority: 2 Inspector: JB

License No.: 00-11-0113-01 Priority: 1 Inspector: TM Nevada Final IMPEP Report Inspection Casework Reviews

Accompaniment No.: 3 Licensee: Western Technologies, Inc. Inspection Type: Routine, Unannounced Inspection Date: 3/6/13

License No.: 00-11-0019-01 Priority: 1 Inspector: JF

Page C.4

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1 Licensee: University of Nevada - Reno Type of Action: Termination Date Issued: 10/31/12

File No.: 2 Licensee: Cardinal Health 414, LLC Type of Action: Amendment Date Issued: 2/13/13

File No.: 3 Licensee: A2Z NDT Type of Action: New Date Issued: 5/14/13

File No.: 4 Licensee: United Blood Services Type of Action: Renewal Date Issued: 5/31/12

File No.: 5 Licensee: Grizzly Materials & Testing Type of Action: Termination Date Issued: 6/28/11

File No.: 6 Licensee: Black Eagle Consulting, Inc. Type of Action: Amendment Date Issued: 4/23/13

File No.: 7 Licensee: Sunrise Hospital and Medical Center Type of Action: Amendment Date Issued: 3/14/13

File No.: 8 Licensee: Animal Imaging & Treatment Center Type of Action: Renewal Date Issued: 2/13/13 License No.: 16-13-0003-08 Amendment No.: 2 License Reviewer: SR

License No: 03-11-0332-03 Amendment No.: 1 License Reviewer: JB

License No.: 00-11-0693-01 Amendment No.: 0 License Reviewer: JB

License No.: 16-11-0300-01 Amendment No.: 8 License Reviewer: AH

License No.: 00-11-0589-01 Amendment No.: 5 License Reviewer: TM

License No.: 00-11-0409-02 Amendment No.: 3 License Reviewer: JB

License No.: 03-12-0395-02 Amendment No.: 17 License Reviewer: JB

License No.: 03-12-0413-01 Amendment No.: 6 License Reviewer: SR Nevada Final IMPEP Report Licensing Casework Reviews

File No.: 9 Licensee: Renown Regional Medical Center Type of Action: Amendment Date Issued: 6/17/13

File No.: 10 Licensee: St. Rose Dominican Hospital Type of Action: Amendment Date Issued: 3/20/13

File No.: 11 Licensee: Black Eagle Consulting Company Type of Action: Amendment Date Issued: 1/24/13

File No.: 12 Licensee: Nevada Department of Transportation Type of Action: Renewal Date Issued: 6/3/13

File No.: 13 Licensee: Premier Magnesia, LLC Type of Action: Renewal Date Issued: 7/13/11

File No.: 14 Licensee: Varian Medical Systems Type of Action: Amendment Date Issued: 11/7/12

File No.: 15 Licensee: Best Lighting Products, Inc. Type of Action: Termination Date Issued: 12/17/12

File No.: 16 Licensee: QC Southwest Type of Action: Renewal Date Issued: 9/5/12

File No.: 17 Licensee: Renown Regional Medical Center Type of Action: Termination Date Issued: 4/12/10 License No.: 16-12-0016-01 Amendment No.: 104 License Reviewer: AK

License No.: 03-12-0395-02 Amendment No.: 7 License Reviewer: SR

License No.: 00-11-0409-01 Amendment No.: 11 License Reviewer: AK

License No.: 00-14-0407-01 Amendment No.: 12 License Reviewer: TM

License No.: 13-11-0612-01 Amendment No.: 4 License Reviewer: AH

License No.: 03-11-0637-01 Amendment No.: 4 License Reviewer: TS

License No.: 03-11-0494-02 Amendment No.: 14 License Reviewer: AK

License No.: 00-11-0499-01 Amendment No.: 4 License Reviewer: TS

License No.: 16-12-0430-01 Amendment No.: 24 License Reviewer: SR Nevada Final IMPEP Report Licensing Casework Reviews

File No.: 18 Licensee: PetNet Solutions, Inc. Type of Action: Amendment Date Issued: 5/15/13

File No.: 19 Licensee: Cardinal Health 414, LLC Type of Action: Termination Date Issued: 11/17/11

File No.: 20 Licensee: University of Nevada – Las Vegas Type of Action: Amendment Date Issued: 4/11/11

File No.: 21 Licensee: Comprehensive Cancer Centers of Nevada Type of Action: Amendment Date Issued: 6/10/13

File No.: 22 Licensee: Comprehensive Cancer Centers of Nevada Type of Action: Amendment Date Issued: 5/14/13 License No.: 03-1-0468-01 Amendment No.: 18

License Reviewer: JB

License No.: 01-11-0150-01 Amendment No.: 56 License Reviewer: AK

License No.: 13-13-0305-01 Amendment No.: 40 License Reviewer: AK

License No.: 03-12-0491-01 Amendment No.: 18 License Reviewer: AK

License No.: 03-12-0525-01 Amendment No.: 21 License Reviewer: AK

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS.

File No.: 1 Licensee: Robinson Mining Company Date of Incident: 4/29/10 Investigation Date: 4/29/10

File No.: 2 Licensee: St. Mary's Regional Hospital Date of Incident: 3/16/10 Investigation Date: 5/14/10

File No.: 3 Licensee: West Valley Imaging Date of Incident: 7/21/10 Investigation Date: 7/21/10

File No.: 4 Licensee: Round Mountain Gold Corporation Date of Incident: 3/10/10 Investigation Date: 3/15/10

File No.: 5 Licensee: Las Vegas Paving Date of Incident: 3/10/10 Investigation Date: 3/11/10

File No.: 6 Licensee: James Hardie Building Products Date of Incident: 1/1/05 Investigation Date: 7/9/12

File No.: 7 Licensee: Summerlin Medical Center Date of Incident: 12/23/11 Investigation Date: 12/28/11

File No.: 8 Licensee: 21st Century Oncology Date of Incident: 10/12/12 Investigation Date: 10/15/12 License No.: 17-11-0372-01 NMED No.: 100222 Type of Incident: Equipment Failure Type of Investigation: Site

> License No.: 16-12-0244-02 NMED No.: 100263 Type of Incident: Medical Event Type of Investigation: Site

License No.: 03-23-0384-02 NMED No.: 100381 Type of Incident: Medical Event Type of Investigation: Telephone

License No.: 13-11-0097-01 NMED No.: 100126 Type of Incident: Equipment Failure Type of Investigation: Telephone

License No.: 00-22-0255-01 NMED No.: 100114 Type of Incident: Lost/Stolen RAM Type of Investigation: Site

License No.: General NMED No.: 120408 Type of Incident: Lost/Stolen RAM Type of Investigation: Telephone

License No.: 03-12-0388-01 NMED No.: 120089 Type of Incident: Lost/Stolen RAM Type of Investigation: Telephone

License No.: 03-12-0429-01 NMED No.: 120621 Type of Incident: Medical Event Type of Investigation: Telephone Nevada Final IMPEP Report Incident Casework Reviews

File No.: 9 Licensee: St. Mary's Regional Hospital Date of Incident: 5/14/13 Investigation Date: 5/14/13

File No.: 10 Licensee: Acclaim Material Testing Date of Incident: 12/28/09 Investigation Date: 12/28/09

File No.: 11 Licensee: University of Nevada – Las Vegas Date of Incident: 4/5/11 Investigation Date: 8/31/12

File No.: 12 Licensee: Bracco Diagnostics Date of Incident: 2/11/11 Investigation Date: 12/5/11

File No.: 13 Licensee: University Medical Center Date of Incident: 12/9/09 Investigation Date: 12/10/09 License No.: 16-12-0244-02 NMED No.: 130242 Type of Incident: Medical Event Type of Investigation: Telephone

License No.: 00-11-0471-01 NMED No.: 100004 Type of Incident: Equipment Failure Type of Investigation: Site

> License No.: 03-13-0305-01 NMED No.: 120515 Type of Incident: Overexposure Type of Investigation: Site

> License No.: 03-12-0453-01 NMED No.: 110646 Type of Incident: Medical Event Type of Investigation: Site

License No.: 13-12-0034-01 NMED No.: 110339 Type of Incident: Medical Event Type of Investigation: Telephone

ATTACHMENT

September 13, 2013 Letter from Karen K. Beckley Nevada's Response to the Draft Report ADAMS Accession No.: ML13259A002