

February 26, 2002

Ms. Yvonne Sylva, Administrator
State Health Division
Nevada Department of Human Resources
505 East King Street, Room 201
Carson City, NV 89701-4797

Dear Ms. Sylva:

On February 11, 2002, 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 IMPEP review was conducted September 10-14, 2001. The MRB received for their consideration the comments in your January 11, 2002 letter and the draft procedures faxed to the NRC February 7, 2002. The MRB found the Nevada program adequate but needs improvement, and compatible with NRC's program. The MRB recommended heightened oversight with a follow-up review in approximately one year. As part of heightened oversight, I request that periodic conference calls take place with the appropriate Nevada and NRC staffs to discuss the status of the program. The Office of State and Tribal Programs will coordinate the conference calls. I request that, two weeks prior to the calls, you submit a brief status report on the activities conducted since the last report and the necessary statistical data.

I also request that you respond to the recommendations in Section 5 of the enclosed final report including a program improvement plan. The plan should describe the specific details, schedule, and milestones intended to have the program meet the performance criteria in Management Directive 5.6 for satisfactory ratings for all indicators on an ongoing basis. Due to the information provided in your January 11, 2002 response to the draft report, we do not require additional information on Recommendations 2, 3, and 4. However, these areas should be addressed in your program improvement plan. Also, the MRB requested clarification on two issues: inspection schedule and radioactive material involved with the seven initial inspections that exceeded the NRC inspection frequency; and any activity involving reciprocity inspections of teletherapy and irradiator source installation service licensees. Both of these items are discussed in Section 3.1 of the enclosed final report. I ask that your response be submitted within 30 days of this letter. Upon review of the program improvement plan, the staff will schedule the first conference call. During this call, we will also discuss the draft procedures sent on February 7, 2002.

Based on the results of the current IMPEP review, a follow-up review will be scheduled during the period January - March 2003. The follow-up review will cover the State's actions on the recommendations from the September 2001 review.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review and your continuing support of the Radiological Health Section, Bureau of Health Protection Services. 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: Alex Haartz, Deputy Administrator
State Health Division, NV

Stanley R. Marshall, Supervisor
Radiological Health Section, NV

Robert R. Loux, Executive Director
Agency for Nuclear Projects
(Nevada State Liaison Officer)

William Sinclair, UT
OAS Liaison to MRB

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF NEVADA AGREEMENT STATE PROGRAM

September 10-14, 2001

FINAL REPORT

U. S. Nuclear Regulatory Commission

1.0 INTRODUCTION

This report presents the results of the review of the Nevada radiation control program. The review was conducted during the period September 10-14, 2001, by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of Iowa. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of a Final General Statement of Policy," published in the Federal Register on October 16, 1997, and the November 5, 1999, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period August 30, 1997- September 10, 2001 were discussed with Nevada management on September 14, 2001.

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 Division, the Bureau, and the Section, are included as Appendix B. At the time of the review, the Nevada program regulated 231 specific licenses, including broad academic programs, medical programs, radiopharmacies, radiographers, a self-contained irradiator, 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.

A draft of this report was issued to Nevada for factual comment on November 21, 2001. The State responded in a letter dated January 11, 2002 and sent in draft procedures on February 7, 2002. A copy of the procedures can be found on the NRC's Agencywide Document Access and Management System (ADAMS) using the accession number ML020390249. The review team found Nevada's performance to be satisfactory for the indicators, Technical Quality of Inspections and Technical Quality of Licensing Actions. The review team found Nevada's performance to be satisfactory with recommendations for improvement for the indicators, Technical Staffing and Training, Response to Incidents and Allegations, and Legislation and Program Elements Required for Compatibility. The review team found Nevada's performance to be unsatisfactory for the indicator, Status of Materials Inspection Program. The team recommended that a program of heightened oversight be implemented to assess the progress of the State in implementing corrective actions.

On February 11, 2002, the Management Review Board (MRB) met to consider the proposed final report with Ms. Yvonne Sylva, Administrator, State Health Division, Nevada Department of Human Resources, and other Nevada staff. The MRB concurred in the individual findings by the review team for each indicator including the common performance indicator, Status of Materials Inspection Program. The MRB acknowledged the progress of the Section in assessing and completing overdue inspections after the on-site review. The MRB concurred in the review team's recommendation for a program of heightened oversight to assess the progress of the State in implementing corrective actions. The MRB found the Nevada radiation control program was adequate, but needs improvement, and compatible with NRC's program.

In preparation for the review, a questionnaire addressing the common and non-common indicators was sent to the Section on July 7, 2001. The Section provided a response to the questionnaire on August 28, 2001. A copy of the final response can be found on the NRC's ADAMS using the accession number ML013060257.

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

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

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous routine review, which concluded on August 29, 1997, four recommendations were made and the results transmitted to Ms. Yvonne Silva, Administrator, State Health Division, Nevada Department of Human Resources, on December 2, 1997. The team's review of the current status of these recommendations is as follows:

1. The review team finds that the State has not met the frequency of Inspection Manual Chapter (IMC) 1220 for the inspection of reciprocity licensees. The review team recommends that the State inspect a higher percentage of reciprocity licensees, including high priority industrial radiography licensees operating in rural areas. (Section 3.1)

Current Status: As noted in Section 3.1, the review team found that the Section continues to perform a lower percentage of reciprocity inspections than specified in IMC 1220, and that it had no alternative reciprocity inspection policy. This recommendation will be incorporated into the review team's 2001 recommendation in Section 3.1.

2. The review team recommends that the general training and qualification procedure be adopted in writing. (Section 3.2)

Current Status: The review team found that, with the exception of the Transportation Course as a requirement for basic qualification of staff, the Section's formalized training plan is in accordance with the NRC/OAS Training Working Group Report. This recommendation is closed.

3. The team recommended that they review the incident files back to the last event reported to NRC in 1995, and submit reports to NMED as appropriate. At the MRB meeting, the State commented that they had completed the review and had submitted the appropriate

reports. No additional action is necessary and the State does not need to address this recommendation further. (Section 3.5)

Current Status: This recommendation is closed.

4. The team recommends that, as provided by the implementing procedures (“Adequacy and Compatibility of Agreement State Programs,” draft NRC Management Directive 5.9, Handbook Part V), State regulations or other generic legally binding requirements equivalent to the NRC rules be adopted as expeditiously as possible but not later than September 3, 2000 (three years after the September 3, 1997, [62 FR 46517] publication of the final policy.) (Section 4.1.2)

Current Status: As noted in Section 4.1.2, the Section has continued to experience difficulty in promulgating regulations in accordance with the current policy on adequacy and compatibility. This recommendation will be incorporated into the review team’s 2001 recommendation in Section 4.1.2.

During the 1997 review, one suggestion was made for the Section to consider. The team determined that the Section considered the suggestion and took appropriate action.

3.0 COMMON PERFORMANCE INDICATORS

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

3.1 Status of Materials Inspection Program

The team focused on four factors in reviewing this indicator: inspection frequency, overdue inspections, initial inspection of new licenses, and timely dispatch of inspection findings to licensees. The review team's evaluation is based on the Section's questionnaire responses, data gathered independently from the Section's licensing and inspection data tracking system, the examination of completed licensing and inspection casework, and interviews with management and staff.

The team found that the Section's inspection priorities require inspections as frequent as, or more frequent than those specified in IMC 2800 for similar license types. The Section's inspection priorities were the same as those specified in IMC 2800 for Priority 1 and Priority 2 licensees. The Section's inspection priorities for all other program types were more frequent than specified in IMC 2800. For example, IMC 2800 specifies Priority 5 for portable gauges while the Section specifies Priority 3.

The Section maintains a licensee database that does not retain historical data and thus provides current year data only. Given the number of current overdue inspections, the review team requested, while onsite, that the Section review files to establish historical data to evaluate this indicator for the review period. The review team also verified the information while onsite by conducting a similar file review.

Based on data provided by the Section, the review team determined that the Section has 90 core licensees according to NRC inspection priorities, and that 110 core inspections (including initial

inspections) were due during the review period. Thirty-two core inspections were either conducted overdue or will be overdue by more than 25% of the NRC inspection frequency when they are completed, and are considered overdue. As of September 10, 2001, 16 of the 32 core inspections were not completed.

The review team noted that although it was difficult to discern a specific root cause, the Section's aggressive inspection priorities coupled with the amount of staff effort devoted to the program appears to have contributed to the number of overdue inspections. In addition, the team noted that the Section appears to place greater emphasis on the completion of less complex Priority 2 and 3 core inspections versus the more safety significant Priority 1 core inspections. For example, 21 of the 32 identified overdue inspections are Priority 1 programs, of which six Priority 1 inspections were not completed as of the onsite review. 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.

The team identified that 47 of the 110 due core inspections were initial inspections. Of the 47 initial inspections, seven have or will exceed the NRC inspection frequency for initial inspections. The overdue initial inspections ranged from 3 to 11 months overdue. The Section's practice with respect to new licenses is to contact licensees by telephone at least every 6 months following issuance of the new license to determine if new licensees have received the first shipment of licensed material. Based on subsequent discussions with the Section Supervisor, the practice is based on long-term experience with new licenses. The Section provided written documentation of this practice after the onsite review. The Section includes a detailed discussion of the regulations, policies, and procedures with the licensee during the onsite initial inspection. Based on the telephone discussions, if a new licensee receives licensed material within 12 months of license issuance, the Section then performs an initial inspection as specified in IMC 2800. If the licensee states that they have not received radioactive material within 12 months of license issuance, then the Section does not conduct the initial inspection until subsequently informed by the licensee that licensed material has been received. According to IMC 2800, initial inspections are to be performed within 6 months of receipt of licensed material, within 6 months of beginning licensed activities, or within one year of license issuance, whichever comes first. The Section's practice of not performing initial inspections until informed by new licensees that they had received licensed material resulted in overdue initial inspections according to NRC's inspection frequency. The review team recommends that the Section adopt an initial inspection policy similar to the schedule for initial inspections contained in IMC 2800.

During the February 11, 2002 MRB meeting, the MRB requested clarification on the Section's inspection schedule and the radioactive materials involved with the seven initial inspections that exceeded the NRC inspection frequency. Specifically, the State was asked to provide a summary of when inspections occurred once the licensee received radioactive materials, and what materials they received.

During the review of selected inspection casework, the team evaluated the Section's timeliness in providing inspection findings to the licensees. The team identified that the Section issued inspection findings to licensees within 30 days of the inspections with few exceptions.

To evaluate the reciprocity inspection program, the review team evaluated the reciprocity inspection files and the Section's response to the IMPEP questionnaire. The 1997 IMPEP review recommended that the Section inspect a higher percentage of reciprocity licensees, including radiography licensees operating in rural areas. However, during this review period, the Section performed a lower percentage of reciprocity inspections than that specified in IMC 1220. For

example, IMC 1220 specifies that 100% of the service licensees performing teletherapy and irradiator source installations or changes under reciprocity should be conducted. In their response to the IMPEP questionnaire, the Section indicated that they did not conduct any of the nine reciprocity inspections for this category of service licensees during the review period. During the February 11, 2002 MRB meeting, the Section Supervisor noted that this information was incorrect. The MRB requested that the State provide clarification regarding the information previously provided in the IMPEP questionnaire on this subject. The review team recommends that the Section perform reciprocity inspections as specified in IMC 1220.

Under Management Directive 5.6, if more than 25% of the core licensees are inspected at intervals that exceed NRC frequencies, the indicator finding should be unsatisfactory. The review team determined that 29% of the core inspections (including initial inspections) were conducted or will be conducted at intervals that exceed NRC frequencies. At the February 11, 2002 MRB meeting, the Section Supervisor commented that the overdue inspections had been assigned to qualified staff and that approximately a third of the overdue inspections had been completed.

Based on the IMPEP evaluation criteria, the review team recommends that Nevada's performance with respect to the indicator, Status of the Materials Inspection Program, be found unsatisfactory. Based on the team's recommendation, the MRB agreed that an unsatisfactory rating was appropriate for this indicator. The MRB also acknowledged the mitigating actions and progress of the Section in assigning and completing overdue inspections after the on-site review.

3.2 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, and inspection field notes and interviewed inspectors for 15 radioactive materials inspections conducted during the review period. The casework included six of the Section's materials license inspectors, and covered inspections of various types including fixed and portable gauges, industrial radiography, medical (diagnostic, therapy, teletherapy and brachytherapy) and academic broad scope. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

Based on casework, the review team noted that routine inspections covered all aspects of licensed radiation programs. The review team found that inspection reports were thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that licensees' performance with respect to health and safety was acceptable. The documentation supported violations, recommendations made to licensees, unresolved safety issues, and discussions held with licensees during exit interviews. Team inspections were performed when appropriate.

Accompaniments of two senior inspectors were conducted by an IMPEP team member during the period of August 12-17, 2001. Both inspectors were accompanied during inspections of nuclear medicine facilities. Three of the program inspectors were not accompanied since they provide limited FTE support to the Agreement materials program. The accompaniments are identified in Appendix C.

During the accompaniments, each inspector demonstrated appropriate inspection techniques, knowledge of the regulations, and conducted performance-based inspections. The inspectors were trained, well prepared for the inspection, and thorough in their audits of the licensees' radiation safety programs. Each inspector conducted effective interviews with appropriate licensee personnel, observed licensed operations, conducted confirmatory measurements, and

utilized good health physics practices. Their inspections were adequate to assess radiological health and safety at the licensed facilities.

The team noted that although supervisory accompaniments of all inspectors were not completed annually, no performance issues were identified. The team noted that no inspectors were accompanied in 1997; one inspector was accompanied in 1998; one inspector was accompanied three times in 1999; five inspectors were accompanied in 2000; and, as of the date of the IMPEP review, one inspector was accompanied in 2001. The team also found that two supervisory senior staff, one in the Carson City office and a second in the Las Vegas office, were not accompanied during the review period. 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.

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

3.3 Technical Staffing and Training

Issues central to the evaluation of this indicator include the radioactive materials program staffing levels and staff turnover, as well as the technical qualifications and training histories of the staff. To evaluate these issues, the review team examined the Section's questionnaire responses relative to this indicator, interviewed program management and staff, and considered any possible workload backlogs.

The Section has responsibility for the control of all radiation program areas in Nevada. The Section is headquartered in Carson City with a field office located in Las Vegas, Nevada. Licensing and inspection activities are conducted from both offices. The Section is funded through several mechanisms including State general funds, Environmental Protection Agency monies for radon, Department of Energy support for the Waste Isolation Pilot Program, and 15% collected from licensee fees.

The team found, based on response to the questionnaire and discussion with the Section Supervisor, that the Section, when fully staffed, devotes approximately 2.80 full time equivalents (FTE) of staff effort to the Agreement materials program. This level of effort consists of: one Section Supervisor (0.2 FTE); one supervisory Radiological Staff Specialist (0.9 FTE); one supervisory Radiation Physicist (0.1 FTE); one Radiation Control Specialist II (0.85 FTE); and four technical staff (with a combined level of 0.75 FTE). Thus, the team found that two primary staff support the Agreement materials program: the supervisory Radiological Staff Specialist located in the Carson City Office and a Radiation Control Specialist II located in the Las Vegas Office; each contributing .90 and .85 FTE respectively to the Agreement materials program. As a result of two vacancies, the Radiation Control Specialist II from the Las Vegas Office, and a technical staff position from the Las Vegas Office, the Section is currently staffed at a level of 1.85 FTE.

The team noted the significance of the vacancy created by the departure of the Radiation Control Specialist II from the Las Vegas Office, which occurred on September 4, 2001, given the level of effort this position devotes to the program. The Las Vegas Office has responsibility for routine licensing and inspection activities for 158 of the program's 231 licenses. The Carson City Office has responsibility for the remaining licenses, and other Agreement materials program activities, such as rule promulgation. The team also noted that of the remaining three staff located in Carson City, two staff routinely conduct only two to five Agreement materials inspections per year and one staff member, who is primarily responsible for the radon program, conducts a limited

number of gauge inspections per year. The supervisory Radiation Physicist and the final staff position supporting the program are both located in the Las Vegas Office and provide only limited support (0.1FTE each), given their other program responsibilities.

During the review period, one position was vacated three times and is currently vacant. A second vacancy occurred September 4, 2001, as noted above. According to the Section Supervisor, the four staff left the program for higher salaries. One staff member who retired in 1998 has recently returned, but as a part-time employee in the non-Agreement State materials area. The Section Supervisor stated that salaries have remained stable for the last 20 years even though the Section has undergone a 20% increase from 169 to 231 licenses during the review period. The Section Supervisor also stated that although recent legislation was passed to provide a 4% salary increase for State employees, he believes salaries remain comparatively low to other local State programs, which could hamper efforts to hire and retain staff. At the February 11, 2002 MRB meeting, the Section Supervisor and the MRB noted that although the Section has hired two new staff members, they will need training and experience before they are fully qualified. The MRB also discussed with the Section the benefits of maintaining a contingency staffing plan, including cross training staff. The review team recommends that the Division review the level of staff effort needed for the program and ensure that an adequate complement of trained and qualified staff is devoted to the Agreement State program.

The Section requires that all technical staff members have a bachelor's degree in health physics or a related scientific discipline and one year of experience in regulatory health physics or radiation protection or training and equivalent experience. Other educational requirements, including an associate degree and equivalent experience may also be acceptable. The review team found that, with the exception of the Transportation Course as a requirement for basic qualification of staff, the Section's formalized training plan follows the educational training guidance in the NRC/OAS Training Working Group Report. Since the onsite review, the Section Supervisor has added the Transportation Course as a basic core course for qualification of staff. The team found that the Section is maintaining a record of all educational training taken by the staff, and the Section Supervisor signed off on all of the educational staff training records during the review. Although the team did not find a clear description of the steps to full qualification, such as a description of the training and level of experience necessary to conduct a specific level of radiation control activities, the team was provided documentation of the specific qualifications for some of the current technical staff.

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

3.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed the staff for 11 specific licenses. Licensing actions were evaluated for completeness, consistency, proper isotopes and quantities used, qualifications of authorized users, adequate facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions. Licenses were evaluated for overall technical quality including accuracy, appropriateness of the license, its conditions, and tie-down conditions. Casework was evaluated for timeliness; adherence to good health physics practices; reference to appropriate regulations; financial assurance, documentation of safety evaluation reports, product certifications or other supporting documents; consideration of enforcement history on renewals; pre-licensing visits, peer or

supervisory review as indicated; and proper signature authority. The files were checked for retention of necessary documents and supporting data.

The licensing casework was selected to provide a representative sample of licensing actions that were completed during the review period. The sampling included the following types: portable gauge, nuclear pharmacy, research and development, nuclear medicine, brachytherapy, high dose rate remote afterloader, and industrial radiography. Types of licensing actions selected for evaluation included five new licenses, one renewal, three amendments, and two terminations. A list of the licensing casework evaluated with case-specific comments can be found in Appendix D.

Overall, the review team found that the licensing actions were thorough, complete, consistent, of high quality and properly addressed health and safety issues. The staff followed appropriate licensing guides during the review process to ensure that licensees submit information necessary to support their request. Complicated deficiencies were addressed in letters containing appropriate regulatory language.

The team found that actions terminating licenses were well documented, and included the appropriate material survey records. All files reviewed contained documentation of proper disposal or transfer.

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

3.5 Response to Incidents and Allegations

In evaluating the effectiveness of the Section's actions in responding to incidents, the review team examined the Section'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 Nevada files, and evaluated the casework and supporting documentation for 17 material incidents. A list of the reportable incident casework examined with case-specific comments is included in Appendix E. The team also reviewed the Section's response to 10 allegations involving radioactive materials including one allegation 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.

The Section listed 18 reportable and 3 voluntary events involving Agreement material in their response to the questionnaire. The team found 14 of the events in the NMED database. The incidents reviewed included: lost, stolen, or damaged portable gauges, accidental disposal, and the improper release of radioactive material. The review team found the Section's response to incidents were complete and comprehensive. Initial responses were prompt, well coordinated, and the level of effort was commensurate with the health and safety significance. The Section dispatches inspectors for onsite investigations when appropriate, and took suitable enforcement and follow-up actions.

Although actions were coordinated with other agencies, as appropriate, the team determined that incidents were not appropriately reported to the NRC. The review team compiled reporting statistics for the incidents listed in the questionnaire which included 15 significant events, three 30-60 day notification events and three voluntarily reported events as defined in the Office of

State and Tribal Programs (STP) Procedure SA-300, "Reporting Material Events." Of the 15 significant events, the review team noted that three events were not reported to NRC, and only four events were reported to the NRC Operations Center within 24 hours after notification of the incident to the Section. It was also noted that 30-60 day notification and follow-up event information was not reported to NRC on a monthly basis as requested in STP Procedure SA-300. Of the three 30-60 day notification events, two were never reported to NRC and the remaining event was reported to NRC 14 months after the Section received licensee notification of the occurrence of the event. Of the 17 incidents reviewed, the review team identified eight incidents where follow-up information was available in the file, but not reported to NRC. For 30-60 day notification events, a report was considered late if the information concerning the incident was received by NRC more than 60 days after the occurrence of the event. Agreement State event reporting to NRC is mandatory as detailed in a Staff Requirements Memorandum dated June 30, 1997.

The team discussed the issue of reporting incidents with Section management and staff, including the need for complete and timely information, e.g., NRC is required to provide information on material events annually to Congress in "Budget Estimates and Performance Plan, Fiscal Year 2002," NUREG 1100, Volume 17. 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 Material Events.

During the review period, the NRC referred one allegation to the Section and nine allegations were received directly. The team reviewed all allegations. The casework indicated that the Section took prompt and appropriate action in response to the concerns raised. The team noted that allegations were treated and documented internally in the same manner as incidents. During the review, the team was unable to find documentation that the Section provided the results of their investigation to the allegor. Subsequently, in follow-up discussions with the Section Supervisor, the team noted that the Section practice includes a written close-out summary with the allegor when possible.

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

4.0 NON- COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing Agreement State programs: (1) Legislation and Program Elements Required for Compatibility; (2) Sealed Source and Device Evaluation Program; (3) Low-Level Radioactive Waste Disposal Program; and (4) Uranium Recovery Program. Nevada's Agreement does not cover uranium recovery programs, so only the first three non-common performance indicators were applicable to this review.

4.1 Legislation and Program Elements Required for Compatibility

4.1.1 Legislation

Along with their response to the questionnaire, the Section provided the review team with the opportunity to review copies of legislation that affects the radiation control program. 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 radiation control

program was passed since being found adequate during the previous review, and the team found that the State legislation is adequate.

4.1.2 Program Elements Required for Compatibility

The Nevada Radiological Health Rules, found in Chapter 459 of the Nevada Administrative Code (NAC), applied 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 examined the procedures used in the State's regulatory process and found that Nevada offers the public the opportunity to comment on proposed regulations and participate in public hearings before the Board of Health. Procedures also require the proposed regulations, and proposed hearing date, be publicized. Written response to all written public comments must be part of the staff presentation to the Board.

The team evaluated Nevada's responses to the questionnaire, reviewed the status of the regulations required to be adopted by the State under the Commission's adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the STP Regulation Assessment Tracking System.

Since the last IMPEP review, the State adopted 10 regulations that became effective January 1999.

Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally binding requirements no later than three years after they are effective. The following ten regulations are overdue:

- "Termination or Transfer of Licensed Activities: Recordkeeping Requirements," 10 CFR Parts 20, 30, 40, 61 and 70 amendments (61 FR 24669) that became effective on June 16, 1996.
- "Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act," 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 on 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 on May 29, 1997.
- "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations; Final Rule," 10 CFR Parts 30, 34, 71 and 150 amendments (62 FR 28948) that became effective on June 27, 1997.
- "Radiological Criteria for License Termination," 10 CFR Parts 20, 30, 40 and 70 amendments (62 FR 39058) that became effective on August 20, 1997.

- “Exempt Distribution of a Radioactive Drug Containing One Micro Curie of Carbon-14 Urea,” 10 CFR Part 30 amendment (62 FR 63634) that became effective on January 2, 1997.
- “Deliberate Misconduct by Unlicensed Persons,” 10 CFR Parts 30, 40, 61, 70 and 150 amendments (63 FR 1890 and 13773) that became effective on February 12, 1998.
- “Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations-Part 34,” 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 and 45393) that became effective on October 26, 1998.

During the onsite IMPEP review, the Section Supervisor discussed with the review team that he expected the Section to adopt 10 regulations during calendar year 2001. The regulations were drafted May of 2000, published for public review and comment, and then submitted to NRC for review on July 12, 2001. The Section Supervisor requested a response from NRC by September 1, 2001. (An alternate date of October 16, 2001, was subsequently established based on discussion with program management.) Following receipt of NRC comments, the Section planned to continue with the next step in the promulgation process; an adoption hearing before the Board of Health. The NRC completed its review and transmitted comments for nine regulations on November 8, 2001, and one regulation on November 16, 2001 to the Section Supervisor.

The team identified the following regulation changes and adoptions that will be needed in the future, and the Section related that the regulations would be addressed in upcoming rulemaking or by adopting alternate legally binding requirements:

- “Transfer for Disposal and Manifest; Minor Technical Conforming Amendments,” 10 CFR Part 20 amendment (63 FR 50127) that became effective on November 20, 1998. The Department plans to implement this regulatory requirement by adopting alternate legally binding requirements. The review team discussed with the Section Supervisor the need to provide a copy of all regulations that will be implemented by legally binding requirements for review by NRC. The Section has not submitted the proposed alternate legally binding requirements to NRC for review.
- “Respiratory Protection and Controls to Restrict Internal Exposures,” 10 CFR Part 20 amendment (64 FR 54543 and 55525) that became effective on February 2, 2000.
- “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 Part 34, 36, and 39 amendments (65 FR 63749) that became effective on January 8, 2001.

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 was previously made during the 1997 IMPEP review.

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

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

The team did not evaluate the Section's SS&D program during this review. Although Nevada currently has responsibility for this area, the Section did not perform any SS&D evaluations during the period of the review. The review team verified this information by review of the national SS&D registry and confirmed that the Section had not issued any SS&D sheets during this period of review.

4.3 Low - Level Radioactive Waste (LLRW) Disposal Program

The team did not review the State's LLRW program due to an unexpected loss of a review team member from the onsite portion of the review. The Section has no separate LLRW program, but instead regulates the LLRW license in the same manner as any other complex specific license. This indicator will be reviewed during the next scheduled follow-up IMPEP review.

5.0 SUMMARY

As noted in Section 3 and 4 above, the review team found Nevada's performance to be satisfactory for the indicators, Technical Quality of Inspections and Technical Quality of Licensing Actions. The review team found Nevada's performance to be satisfactory with recommendations for improvement for the indicators, Technical Staffing and Training and Response to Incidents and Allegations, and Legislation and Program Elements Required for Compatibility. The review team found Nevada's performance to be unsatisfactory for the indicator Status of Materials Inspection Program. Accordingly, the review team recommended and the MRB concurred that the Nevada Agreement State program be found adequate, but needs improvement, and compatible with NRC's program. The review team recommended and the MRB concurred that a program of Heightened Oversight be implemented to assess the progress of the State. The MRB directed that the follow-up review be scheduled during the period of January - March 2003.

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

RECOMMENDATIONS

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. (Section 3.1)
2. The review team recommends that the Section adopt an initial inspection policy similar to the schedule for initial inspections contained in IMC 2800. (Section 3.1)
3. The review team recommends that the Section perform reciprocity inspections as specified in IMC 1220. (Section 3.1)
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. (Section 3.2)

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. (Section 3.3)
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 Material Events. (Section 3.5)
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. (Section 4.1)

LIST OF APPENDICES AND ATTACHMENTS

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
Attachment	January 11, 2002 Letter from Yvonne Sylva Nevada's Response to Draft IMPEP Report

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Patricia Larkins, STP	Team Leader Technical Staffing and Training Legislation and Program Elements Required for Compatibility
Linda McLean, RIV	Inspector Accompaniments
Robert Gattone, RIII	Status of Materials Inspection Program Technical Quality of Licensing Actions
George Johns, Iowa	Technical Quality of Inspections Response to Incidents and Allegations

APPENDIX B

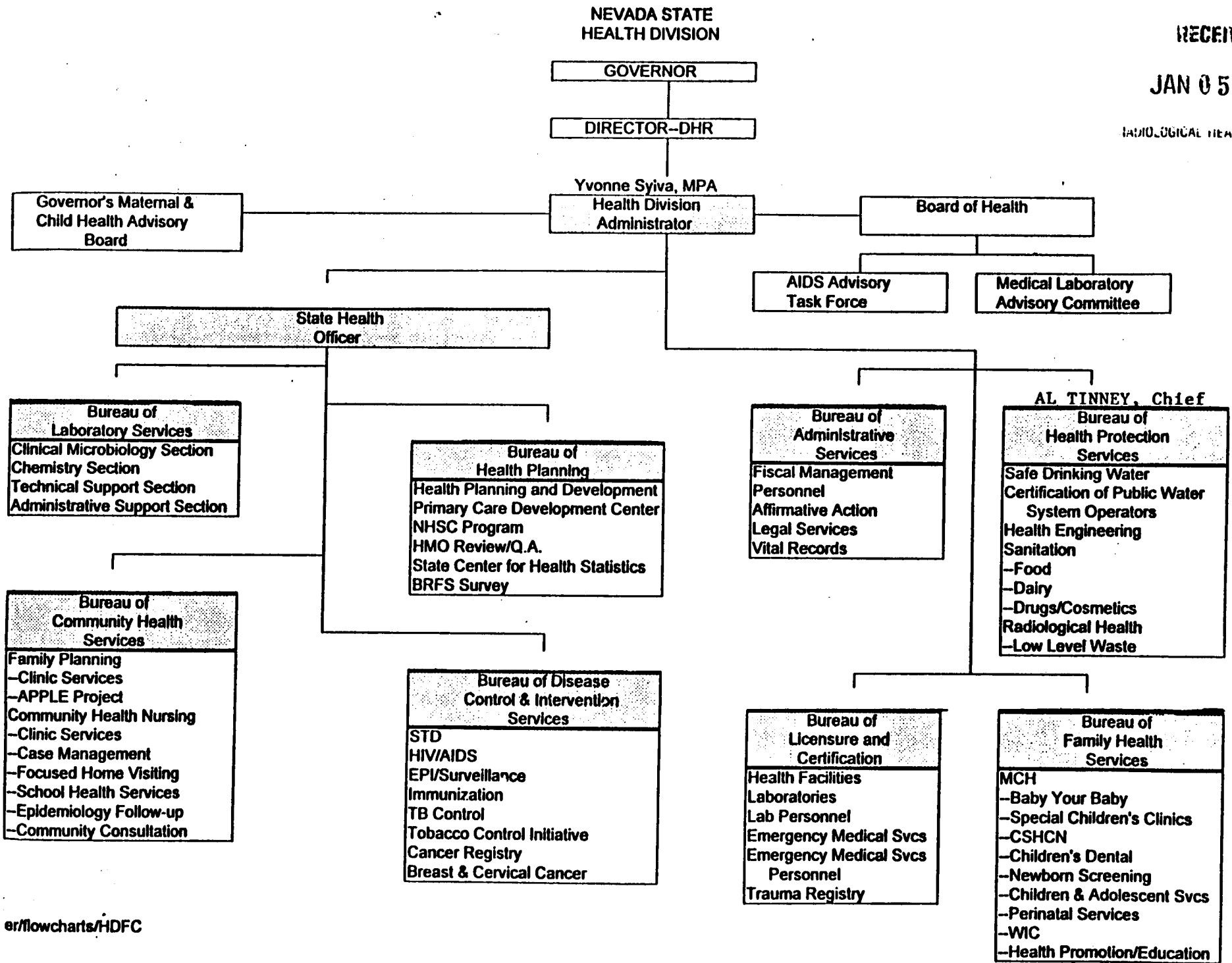
NEVADA ORGANIZATION CHARTS
(ML013060280)

NEVADA STATE
HEALTH DIVISION

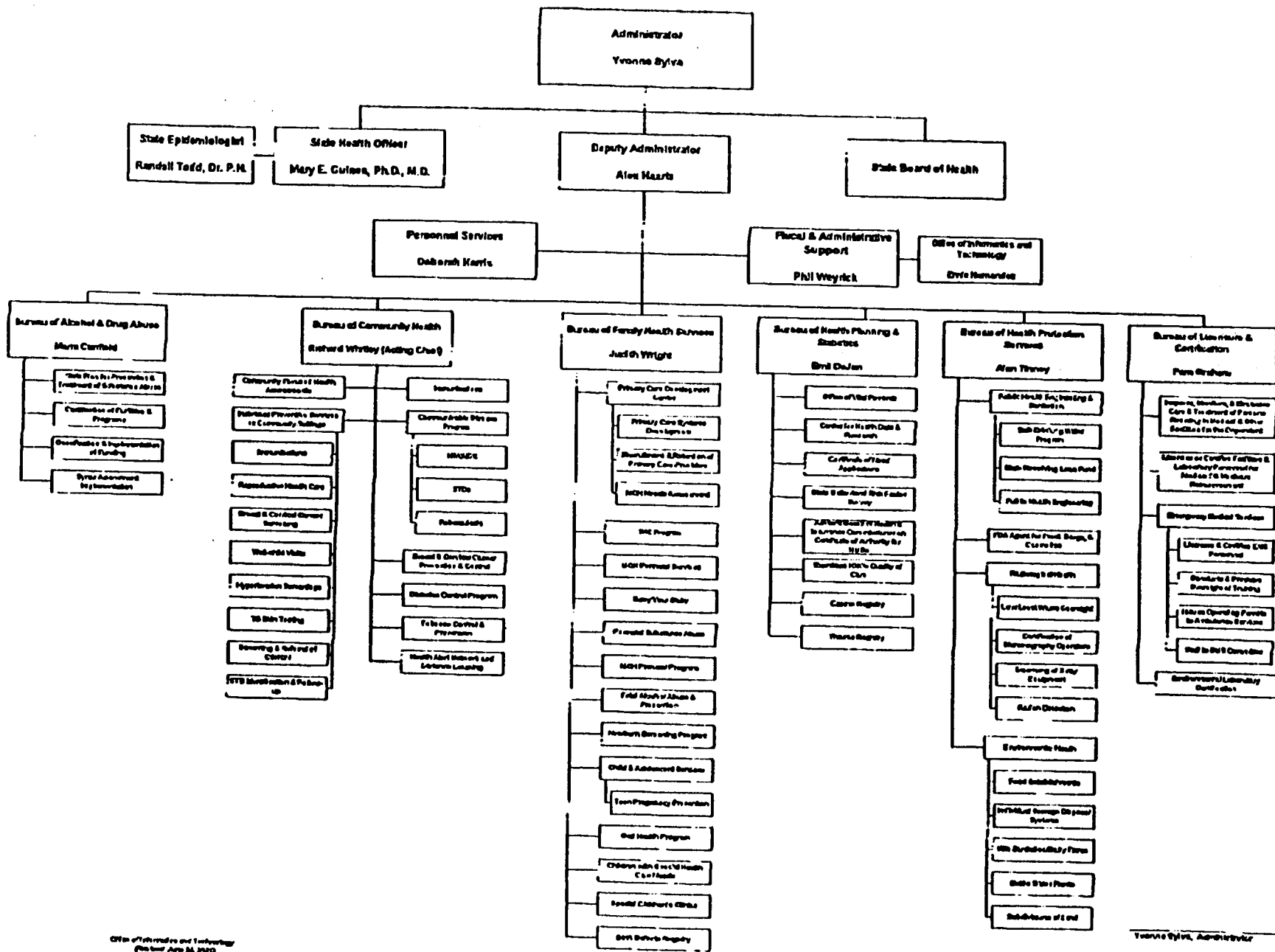
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RADIOLOGICAL HEALTH SECTION



Nevada State Health Division 2001



Office of Informatics and Technology
Phil Weyrick, June 24, 1999

Yvonne Byrle, Administrator
Date

Bureau of Health Protection Services

May 2001

Alan Tinney (#02)
Bureau Chief

Carol Whaley (#16)
Management Assistant III

Joey Alexander (#23)
Management Assistant I

Thomas Purkey (#63)
Administrative Services
Officer I

Debra Harvey (#31)
Accounting Specialist

Lauri Neville (#60)
Accounting Clerk III

Jeffrey Farnel (#66)
Computer Network
Technician I

Public Health Engineering #3194 (Drinking Water, Engineering)

Galen Danto (#12)
Manager II, Registered
Professional Engineer

Kimberly Smith (#62)
Management Assistant II

Christine Schilling (#17)
Management Assistant I
0.5 FTE

Vicky Downs (#3211-04)
Management Assistant I
0.5 FTE

(vacant) (#33)
Management Assistant I

Drinking Water State Revolving Fund #3211

Adole Boehm (#01)
Supervisor IV, Registered
Professional Engineer

Ethel Bennett (#02)
Accountant II

Julie Morgan (#03)
Management Assistant II

(vacant) (#06)
Water Supply Specialist

Cheryl Lannon (#08)
Staff II, Associate Engineer
Capacity Development

SDWA Field Activities Engineering

Dana Pennington (#20)
Environmental Health
Specialist IV

Terry Hall (#10)
Environmental Health
Specialist III

Patricia Lechner (#08)
Environmental Health
Specialist III

Judy Neubart (#07)
Environmental Health
Specialist III

Steve Brockway (#41)
Water Supply Specialist

Larry Rountree (#28)
Environmental Health
Specialist III

Connie Forester (#44)
Management Assistant I

James Larson (#00)
Staff III, Registered
Professional Engineer
DOE Facilities

Andrew Hamilton (#05)
Staff III, Registered
Professional Engineer

Public Health Engineering

Jim Balderson (#01)
Supervisor IV, Registered
Professional Engineer

(vacant) (#42)
Staff III, Registered
Professional Engineer

Joe Pollock (#68)
Staff III, Associate
Engineer

Rich Drew (#51)
Staff III, Associate
Engineer

Linda Martinez (#3211-00)
Staff II, Associate Engineer

Andrea Squarrito (#19)
Staff II, Associate Engineer

LAS VEGAS

(vacant) (#32)
Environmental Health
Specialist III

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

James Hogan (#13)
Environmental Health
Specialist IV

Amanda Barnes (#00)
Management Assistant I

Debra Woodman (#11)
Public Health Rating &
Surveillance

Ann Harvey (#71)
Environmental Health
Specialist III

James Wane (#30)
Environmental Health
Specialist II

Dave Evans (#55)
Environmental Health
Specialist II

Bruce Rawlings (#34)
Environmental Health
Specialist II

Richard Ely (#38)
Environmental Health
Specialist III

Marty Goodman (#00)
Environmental Health
Specialist II

Debra Rocca (#60)
Environmental Health
Specialist II

Rich Wilvers (#00)
Environmental Health
Specialist III

Scott Marteney (#00)
Environmental Health
Specialist II

Jesse Frandsen (#03)
Environmental Health
Specialist II

Teresa Dory (#72)
Management Assistant I
0.5 FTE

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

Debra Marshall (#21)
Supervisor
Radiological Health

Richard Steed (#21)
Accounting Specialist

Corothy Pink (#37)
Program Assistant I

Alyce Baldwin (#57)
Management Assistant I
0.5 FTE

Marilyn Anderson (#40)
Management Assistant I
0.5 FTE

Paul Simpson (#55)
Radiological Staff
Specialist II

Morgan Tyler (#30)
Radiation Control
Specialist II

Adrian Horen (#54)
Radiation Control

Larry Franks (#02)
Radiation Specialist

Coron Valley & Shellfish
Lake Tahoe

Amargosa
Lahav Waste

ELY

ELKO

FALLON

WINNEMUCA

DOE Facilities
Low Level Waste Site

Clark County, Mequim,
& Pahump

Pahump

DOE Facilities

DOE Facilities

DOE Facilities

DOE Facilities

DOE Facilities

Paul Murphy (#10)
Radiation Control
Specialist II

Ernie Ranker (#16)
Radiation Control
Specialist II

(vacant) (#36)
Radiation Control
Specialist II

Sheri Bush (#60)
Management Assistant I
0.5 FTE

(vacant) (#32)

(vacant) (#36)

VACANT
9/1-10/1

ATTACHMENT

January 11, 2002 Letter from Yvonne Sylva
Nevada's Response to Draft IMPEP Report

ML020160424

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

January 11, 2002

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

Re: State Response to Nevada IMPEP Draft Report Dated November 21, 2001

Dear Mr. Lohaus:

Please find attached the State Health Division response to the review of the Nevada Agreement State Program conducted on September 10 through 14, 2001.

It is unclear as to whether the prescriptive protocols and procedures referenced in the extended narrative of pages 1 through 12 are requirements for the state to implement or whether they are optional.

In addition, please clarify the regulation denoted as 63 FR 393477 on page 11 of the draft report as we are unable to locate a NRC regulation with this number.

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

Alan Tinney, Chief
Bureau of Health Protection Services

Stan Marshall, Supervisor
Radiological Health Section

Bob Loux, Director
Nevada Agency for Nuclear Projects

ML020160424

Building and Strengthening Public Health through Communication and Partnerships

Spec 1

State agency responses to recommendations on draft report pages 12 - 13.

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. (Section 3.1)

Response: Nevada inspection frequencies will be revised and implemented by February 11, 2002 to correspond to NRC inspection frequencies. A copy of the revised frequency schedule will be provided to NRC staff by that date.

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. (Section 3.1)

Response: Nevada inspection frequencies will be revised and implemented by February 11, 2002 to correspond to NRC inspection frequencies. A copy of the revised frequency schedule will be provided to NRC staff by that date.

Recommendation 3: The review team recommends that the Section perform reciprocity inspections as specified in IMC 1220. (Section 3.1)

Response: Nevada inspection frequencies will be revised and implemented by February 11, 2002 to correspond to NRC inspection frequencies. A copy of the revised frequency schedule will be provided to NRC staff by that date.

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. (Section 3.2)

Response: Nevada policy will be revised and implemented by February 11, 2002 to require all technical inspection staff to be accompanied by a senior staff person or the section supervisor on an annual frequency for the purpose of determining or reconfirming adequacy of staff inspection performance. Documentation of the accompaniment/inspection assessment should be documented within 30 days after the performance audit. A copy of the revised policy will be provided to NRC staff by that date.

Recommendation 5: The review team recommends that the Division review the level of staff effort needed for the program and ensure that an adequate complement of staff is devoted to the Agreement State program. (Section 3.3)

Response: On two occasions, two technical positions became vacant. Extended difficult recruitment for the vacancies since the previous audit in 1997 was necessary to fill the positions. Inspection backlog increased during the recruitment periods and when the vacancies were filled, further backlog was generated for some time as existing

trained personnel became less efficient as they provided orientation, on-the-job training, accompaniments and auditing activities to release new staff for inspection activities.

Two staff vacancies noted during the audit were filled by January 7, 2002. Orientation and training in this program will begin as soon as orientations and training in other programs is completed. Completion of a nuclear medicine inspection audit for one existing staff will also be accomplished by February 28, 2002 to help reduce inspection backlog.

Staff has been reminded since the recent audit to conduct core initial, routine and overdue inspections of Categories 1, 2, and 3 as priority fieldwork over lower priority license inspections.

Adjustment of primary work responsibilities may be considered including reassignment of staff from non-Agreement programs to support inspection activities. Review of the audit findings and associated details has been underway since receipt of the draft report to consider various options. Options include pursuing full cost recovery through fees and revision of appropriate legislation if determined necessary.

Recommendation 6: The review recommends that the Section report all significant and 30-60 day notification event and follow-up event information, to the NRC in accordance with the STP Procedure SA-300, Reporting Material Events. (Section 3.5)

Response: All information noted as lacking during the NRC's review of the incident file was provided to NRC personnel during the audit.

New section policy now requires immediate reporting of incidents to the NRC Operations center via fax utilizing a standardized form (attached) from this agency.

Meanwhile, efforts are underway to effect a conversion of the existing state database software to a Windows-based system to accomplish more timely and simpler data transfer for various program purposes including transfer into the NRC NMED database. We also await the upgraded Microsoft Access 97/2000 version of the NMED software program from your agency.

Staff has also made numerous requests for NMED training and believes that until such training is obtained and appropriate software acquired, we may continue to struggle with implementation of streamlined transfer of incident data as it is accumulated. We will utilize hard copy transfer of the information until these issues are resolved.

Staff notes that during a visit by NRC staff since the last audit, Dr. Kevin Hsueh, STP, provided helpful clarification about the NRC event reporting criteria. However, discussion with NRC staff during the recent IMPEP audit indicated that some members of the NRC audit team did not appear to be in agreement with Dr. Hsueh's remarks about the reporting criteria.

We would appreciate hearing from your staff concerning acquisition procedures for the upgraded NRC software, confirmation about the process to obtain NRC NMED training and clarification concerning incident reporting guidance from STP staff on this issue.

Upon receipt of the information, we will install the software and utilize the training to initiate automated transfer of our data into the NRC NMED database.

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. (Section 4.1)

Response: - It is anticipated that the agency policy to unilaterally amend licenses as necessary to incorporate NRC requirements after adoption by NRC will be effective to ensure that the requirements are placed on Nevada licensees in a timely manner.

For your information, the following regulations are under review by the Nevada Legislative Counsel Bureau in the final legal review in our adoption process. Adoption of the regulations by the Nevada State Board of Health is anticipated in early 2002.

61 FR 24669,
61 FR 65120,
62 FR 1662,
62 FR 4120,
62 FR 28948,
62 FR 39058,
62 FR 63634,
63 FR 1890,
63 FR 37059.

Staff will also amend licenses as appropriate for the requirements of 63 FR 45393, 63 FR 50127, 64 FR 54543, 63 FR 55525, 64 FR 20337 and 65 FR 63749.

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Carson City, NV 89701
Phone (775) 687-5394 x 276
Fax (775) 687-5751

Nevada Health Division
Radiological Health Section

Fax—Urgent

To: NRC Operations Center	From: Stan Marshall, Supervisor
Fax: (301) 816-5151	Pages:
Phone: (301) 816-5100	Date: 01/04/02
Re: Significant Event Report	CC:

1. Event Report ID No. NV-
 2. License name, address, license No.
 3. Date and time of occurrence
 4. Date notified of event by licensee or non-licensee
 5. Radionuclide, activity
 6. Any exposures (Indicate short and long-term effects)
 7. Sealed source, device, etc. (make, model #, serial #
 8. Leak test information, if applicable
 9. Equipment (make, model #, serial #), and clear description of any equipment problems
 10. Persons involved, consequences
 11. Transportation, identify shipper, package type and ID No.
 12. Abnormal Occurrence (Y/N)
 13. Cause and contributing factors
 14. Notifications: patient, physician
 15. Licensee corrective actions
 16. Provide status through resolution (update record when found)
-

January 4, 2002

17. **Notifications, local police, FBI and other States; as needed.**
18. **Enforcement Actions**
19. **Identify any possible generic safety concerns**
20. **Potential for others to experience the same event**

J:\ram\hrc ops ctr fax