

Donald L. Shumway, Commissioner  
Department of Health and Human Services  
129 Pleasant Street  
Concord, NH 03301-3857

November 6, 2001

Dear Commissioner Shumway:

On October 26, 2001, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the New Hampshire Agreement State program. The IMPEP review was conducted June 25-29, 2001. The MRB found the New Hampshire program adequate but needs improvement, and not compatible with NRC's program. Because of the significance of the concerns, the MRB intends to enter a period of heightened oversight of the New Hampshire program. I request that bi-monthly conference calls take place with the appropriate New Hampshire and NRC staffs to discuss the status of the program. The Office of State and Tribal Programs will coordinate the bi-monthly conference calls. I request that, two weeks prior to the calls, the New Hampshire program submit a brief status report on the activities conducted since the last report and the necessary statistical data.

I also request that the New Hampshire program prepare and submit a program improvement plan that addresses the recommendations in Section 5 of the enclosed final report. I ask that this report be submitted within 30 days of this letter. Upon review of the program improvement plan, the staff will schedule the first conference call and a more detailed outline for the status reports. The initial conference call should be scheduled and conducted no later than January 7, 2002.

Based on the results of the current IMPEP review, a follow-up review will be scheduled during the period November 2002 - January 2003. The follow-up review will cover the State's action on the recommendations from the June 2001 review.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review and your continuing support of the Bureau of Radiological Health. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

*/RA/*

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

Enclosure:  
As stated

cc: See next page

Donald L. Shumway

cc: John Wallace, Deputy Commissioner  
Department of Health and Human Services

Kathleen A. Dunn, MPH, Director  
Office of Community and Public Health  
Department of Health and Human Services

Veronica Malberg, Director  
Division of Community Support

Diane Tefft, Administrator  
Bureau of Radiological Health  
Department of Health and Human Services

Woodbury P. Fogg, Director  
Office of Emergency Management

William Sinclair, Utah  
OAS Liaison to MRB

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bcc: Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
Commissioner Merrifield

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\*See previous concurrence

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF NEW HAMPSHIRE AGREEMENT STATE PROGRAM

JUNE 25-29, 2001

# FINAL REPORT

U.S. Nuclear Regulatory Commission

## 1.0 INTRODUCTION

This report presents the results of the review of the New Hampshire radiation control program. The review was conducted during the period June 25-29, 2001 by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of South Carolina. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Recission of 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 23, 1997 to June 29, 2001, were discussed with New Hampshire management on June 29, 2001.

A draft of this report was issued to New Hampshire for factual comment on July 27, 2001. The State responded in a letter dated August 23, 2001. At the time of the review, the review team found New Hampshire's performance to be satisfactory for the common performance indicators Technical Quality of Inspections, Technical Quality of Licensing Actions and Response to Incidents and Allegations; satisfactory with recommendations for improvement for the indicator, Technical Staffing and Training; and unsatisfactory for the indicators, Status of Materials Inspection Program, and Legislation and Program Elements Required for Compatibility. Because of the significance of the concerns, the team recommended that a program of heightened oversight be implemented to assess the progress of the State in implementing corrective actions.

On September 11, 2001, the Management Review Board (MRB) initially met to consider the proposed final report with Mr. John Wallace, Deputy Commission, Department of Health and Human Services and other New Hampshire staff. Due to national events, the meeting was postponed and rescheduled at a later date. The MRB met on October 26, 2001, to reconsider the proposed final report. The MRB concurred in the individual findings by the review team for each indicator and 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 New Hampshire radiation control program was adequate, but needs improvement, and not compatible with NRC's program.

The MRB directed that: (1) a program improvement plan be submitted in addition to the responses to the recommendations found in Section 5; (2) that a follow-up review be conducted during the period August - October 2001; and (3) that bimonthly conference calls take place with New Hampshire staff, and that written progress reports be submitted two weeks prior to each call.

The New Hampshire Agreement State program is administered by the Bureau of Radiological Health (the Bureau). The Bureau contains the Radioactive Materials Section (the Section), Radiation Machines Section, Radiochemistry Section, Emergency Response Section, and Radon Section. The Bureau is located within the Office of Community and Public Health, Department of Health and Human Services (the Department). The Department Commissioner is appointed by and reports to the Governor. Organization charts for the Department and the Bureau are included as Appendix B. At the time of the review, the New Hampshire Agreement

State Program regulated approximately 80 specific licenses authorizing Agreement materials. The review focused on the regulatory 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 New Hampshire.

In preparation for the review, a questionnaire addressing the common and non-common indicators was sent to the State on April 11, 2001. The State provided a response to the questionnaire by e-mail on June 11, 2001, and the response was updated during the review. A copy of the questionnaire response is included as Appendix F of the proposed final report and can be found on the NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML013020147.

The review team's general approach for conduct of this review consisted of: (1) examination of the responses to the questionnaire, (2) review of applicable New Hampshire statutes and regulations, (3) analysis of quantitative information from the Bureau's licensing and inspection data bases, (4) technical review of selected licensing actions and inspections, (5) field accompaniments of two materials inspectors, and (6) interviews with staff and management to answer questions or clarify issues. The review team evaluated the information gathered against the IMPEP performance criteria for each common and non-common indicator and made a preliminary assessment of the State's performance.

Section 2 below discusses the Bureau's actions 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 indicators, and Section 5 summarizes the review team's findings, and recommendations. Recommendations made by the review team are comments that relate directly to the performance by the Bureau. A response is requested from the Bureau 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 22, 1997, four recommendations were made and the results were transmitted to Mr. Jeffery B. Schaub, Director, Office of Health Management, Department of Health and Human Services, on November 25, 1997. The team's review of the current status of these recommendations is as follows:

1. The review team recommends that core and non-core licensees be scheduled, assigned, and inspected at regular intervals in accordance with the State's established inspection priority system. (Section 3.1)

Current Status: At the end of calendar year 1999, the Bureau reported that all core licensee inspections were completed. As noted in Section 3.1, the Bureau continues to experience difficulty in completion of inspections. This recommendation will be incorporated into the review team's 2001 recommendation in Section 3.1.

2. The review team recommends that the State review and revise its inspection report preparation process for those containing enforcement actions to ensure timely issuance of inspection findings. (Section 3.1)

Current Status: The current review found that the Bureau had communicated inspection results to the licensee in a timely manner for 13 of the 16 core licenses inspected. This recommendation is closed.

3. The review team recommends that the State evaluate the number of staff needed to implement the program. (Section 3.2)

Current Status: In the 1997 IMPEP, the Bureau had funding for 17 staff members with 3.0 FTE assigned to the radioactive materials program. As vacancies occurred through 1999, the Bureau was successful in filling vacancies. Currently, the Bureau has funding for 16 staff members, with 2.6 FTE devoted to the radioactive materials program. As noted in Section 3.3, the Bureau is experiencing difficulty in hiring new staff due to a hiring freeze. This recommendation will be incorporated into the review team's 2001 recommendation on Section 3.3.

4. The review team recommends that appropriate State follow-up to inspections be conducted to confirm implementation of licensee corrective actions when significant problems have been identified. (Section 3.4)

Current Status: The periodic meeting of September 10, 1998 documented that follow-up inspections were being scheduled for one year from the enforcement conferences. The team's review of the casework noted that both routine and significant items of non compliance are being followed up at the next scheduled inspection and documented in the inspection reports. This recommendation is closed.

The 1997 review team also offered four suggestions for the Bureau to consider. The team found that the Bureau considered the suggestions and implemented a policy concerning initial inspections, increased their reciprocity inspections, conducted annual inspector accompaniments, and issued a memorandum of their intent to adopt the guidance contained in the 1997 NRC/OAS training and qualification report. This issue is further discussed in Section 3.3.

### 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 Action; 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 inspections of new licenses, and timely dispatch of inspection findings to licensees. The review team's evaluation is based on the Bureau's questionnaire responses, data gathered independently from the Bureau's inspection data tracking system, the examination of completed inspection casework, and interviews with management and staff.

A review of the Bureau's inspection priorities revealed that the inspection frequencies for the various types of licenses are the same as similar license types listed in NRC Inspection Manual

Chapter (IMC) 2800. The Bureau has a procedure whereby the listing of inspections due is available to the inspectors. The inspectors use this list to determine their inspection schedules. The Bureau can extend the inspection frequency based on the compliance history of the licensee. The review team found that the Bureau was extending the inspection frequency but the team was not able to determine the basis of any extensions granted during this period. The review team recommends that the process for extending inspection frequency for good licensee performance be clearly defined and that the Bureau maintain documentation of inspection extensions.

At the time of the onsite review, 3 of 21 core inspections had not been completed and were overdue by more than 25% of the NRC inspection frequency. One of the overdue core inspections is a Priority 2, broad scope licensee, which is presently overdue by approximately one and one-half years. Two additional overdue core inspections were conducted during the review period. Thus, 5 of 21 inspections were either overdue when completed or were overdue at the time of the review.

The Bureau has experienced difficulty in completing core inspections for several years. In the 1997 IMPEP review, the review team's preliminary findings were that the program be found unsatisfactory because 33% of the core inspections conducted exceeded NRC frequencies. In response to the draft report and at the MRB, New Hampshire management stated that they had completed all the overdue inspections and implemented measures to ensure performance in this area. Based on the information supplied and discussions held during the MRB, the finding was revised to satisfactory with recommendations for improvement.

The Bureau had no overdue inspections in 1999, but was unable to maintain performance in this area after 1999. The Section Supervisor explained that staffing shortages prevented the Bureau from completing their inspection goals.

The Bureau's policy is to conduct initial inspections of new licensees within one year of license issuance for Priority 4 and lower priority licenses. The team's evaluation of licensing actions determined seven new licenses, Priority 4 or lower, were issued during the review period. Only four of these licensees were due for inspection during the review period. One new licensee was inspected within one year of license issuance, three were inspected more than one year after license issuance. The team also noted that new licenses were hand delivered to the licensees. The inspectors used the opportunity to discuss the requirements of the license and regulations with the licensee, and to verify that the equipment and facilities were as represented in the license application. The Bureau does not consider these new license visits as substituting for the initial inspection. The review team noted that the Bureau's initial inspection frequency is different from NRC IMC 2800, however, after the 1997 IMPEP review, the MRB found the Bureau's policy to conduct initial inspections of Priority 1, 2 and 3 within six months, and those licensees with inspection priorities lower than Priority 3 inspected initially within 12 months based on the risk to be acceptable. However, the Bureau was unable to meet their inspection priority frequency. The review team recommends that the Bureau take the appropriate management measures to conduct inspections (both initial and core) in accordance with the State's established inspection priority system.

During the inspection casework review, the team evaluated the timeliness of the Bureau in providing inspection findings to the licensee. Of the 16 inspections reviewed, three inspection reports were issued more than 30 days after the inspection date. One was issued 5 days late,



the other two were issued at 51 days and 90 days beyond the 30-day goal for issuance of inspection reports.

To evaluate the reciprocity inspection program, the team reviewed reciprocity inspection files and the Bureau's response to the IMPEP questionnaire. Overall during the review period, the Bureau did meet the goals established in IMC 1220.

Under MD 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 32% of the core inspections (including initial inspections) were conducted or will be conducted at intervals that exceed NRC frequencies.

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

### 3.2 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, and inspection field notes and interviewed inspectors for 16 inspections conducted during the review period. The casework included four of the Bureau's materials license inspectors, and covered inspections of various types including industrial radiography, Irradiator, medical, academic and portable gauge. Appendix C lists the inspection casework files reviewed for completeness and adequacy with case-specific comments.

Based on the casework, the review team noted that routine inspections covered all aspects of the licensees' radiation control program. The review team found that the 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, and recommendations made to the licensee, unresolved safety issues, and discussions held with the licensee during exit interviews. Team inspections were performed when appropriate and for training purposes.

The inspection procedures utilized by the Bureau were consistent with the inspection guidance outlined in NRC's IMC 2800. Inspection reports are in a format that covers all inspection areas for each inspection type.

The Bureau has an adequate number and variety of survey instruments to support the current inspection program. Survey instruments are calibrated at least annually by a contractor. The team observed that the Bureau had appropriately calibrated survey instruments, such as GM meters, scintillation detectors, ion chambers and micro-R meters. The Bureau also has a well equipped on site laboratory, which includes a multi-channel analyzer, gas-flow proportional counter, and liquid scintillation counting system for counting wipes, soil samples, water samples and other samples.

During the review period, the Section Supervisor performed inspector accompaniments with each of the staff at least annually. These accompaniments are documented in the inspection reports.

Two inspectors were accompanied by an IMPEP team member during the week of May 21, 2001. The accompaniments included inspections of a medical institution and a portable gauge licensee. The facilities inspected 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 licensee's 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.

Based on the IMPEP evaluation criteria, the review team recommends that New Hampshire'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 Bureau'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 Bureau's questionnaire responses, interviewed Bureau management and staff, reviewed job descriptions, and training records. The review team also considered any possible workload backlogs in evaluating this indicator.

The Bureau is authorized for five positions in the Section. These positions include the Section Supervisor, classified as a Health Physicist II position, and four Health Physicist I positions. All Health Physicist staff performs duties in licensing, inspection, and event response based upon their training and experience. In addition, the technical staff performs inspections and duties in the Radiation Machine Section. The Bureau receives advice from the Radiation Advisory Committee, which the Bureau Administrator is an ex officio member and by statute holds the position of the Technical Secretary. The review team identified no conflict of interest concerns.

Successful candidates for technical positions are required to have a bachelor's degree in science for a first level Health Physicist I position, and a master's degree or additional radiation related work experience and training for positions beyond entry level. The team noted that all of the staff had satisfied the degree requirements when hired.

The Bureau Administrator related that only a limited amount of funds were available for out of State travel for training purposes, but the program was committed to providing training as needed for the staff. The technical staff is required to obtain training in basic health physics, and to take the core courses in radioactive material licensing, inspection procedures, industrial radiography, medical uses of radionuclides, and radiological emergency response. The Bureau has identified the required courses and additional training needed by the staff members, but a schedule or plan for the completion of the training was not provided.

The Bureau utilizes on-the-job training to supplement course work so that individuals may achieve the required proficiency and broaden their work areas. As a part of the Bureau's in-house and on-the-job training program, new staff members are assigned increasingly complex licensing duties under the direction of senior staff and accompany experienced inspectors during increasingly complicated inspections. New staff inspectors are assigned independent

inspections after demonstrating competence during accompaniment evaluations by the senior staff.

The Section Supervisor determines when an individual is proficient and can perform assigned tasks independently. However, there was no documentation to indicate that the individuals had been approved for, or had achieved the required proficiencies. Although suggested in the 1997 IMPEP review, the Bureau does not have a documented training program. With the staff turnover experienced by the Bureau, as described below, the review team discussed the necessity of an aggressive written training plan to enable the Bureau to effectively and efficiently qualify new staff members as they are hired. The review team recommends that the Bureau document a training plan for personnel that is consistent with the guidance provided in the NRC/Organization of Agreement States Training Working Group Report or the NRC IMC 1246.

The Bureau has experienced staff turnover since the previous review that in the review team's judgement, has impacted performance of the Section. All Health Physicist I positions were vacated at least once during the period, and the Section currently has two vacant positions. One position became vacant on April 5, 2001, the other position became vacant during the review week. The team was informed that these positions are currently frozen, and that a waiver had been submitted to the Governor's office to hire a qualified replacement when the earlier position became vacant. In addition to the Health Physicist positions, the Bureau lost two Administrative and two Database Support personnel during the review period.

The Bureau Administrator related that the turnover in staff resulted when experienced and trained staff were able to transfer to other States and other programs for considerably more money. The Bureau attempted to minimize the impact of these turnovers by transferring other qualified technical personnel from the Radiochemistry Section to fill the Health Physics positions, and the two administrative positions were filled from other State government positions. The Nuclear Materials Event Database (NMED)/data support positions were lost. The team believes that these turnovers, and the difficulty in filling the frozen positions are part of the root causes of the decline in the performance of the Bureau. As noted in Sections 3.1, 3.4, 3.5 and 4.1, the Bureau has experienced workload backlogs in conducting inspections, completing evaluations of licensing applications, processing license documents, tracking incidents and allegations, and adopting regulations for compatibility. The review team recommends that the Department take the necessary actions to address the staff turnover and staff vacancies as appropriate.

The Bureau reported that 2.6 FTE's were utilized by the Section which includes clerical time and time for emergency exercises and incident response. The Bureau Administrator noted that the four Health Physicists divided their activities equally between the Section and the Radiation Machine Section. Section staff rotates from one Section to the other on a periodic basis, currently every two months. These duties are also depicted in the Bureau organizational chart. The current staff favors working on assignments in both sections because it allows technical staff to maintain their skills in each Section area and provides backup capabilities for each area. However, the team has concerns about the efficiency of frequent rotation of assignments and discussed with management the impacts it has had on the inspection program, the timely issuance of enforcement letters, and the timely review of license applications and issuance of deficiency letters. The review team noted that a customer service survey was conducted by the Radiation Advisory Committee to examine their licensees' perspective on the Bureau's services.

Results of the survey are under review by Bureau staff.

The team believes that Bureau management needs to examine and change the business process and organization of the Section on the basis of the high staff turnover and the staff vacancies, as well as improving the effective use of personnel. The review team recommends that the Bureau examine and change the business processes and organization of the Section to improve the effectiveness and efficiency of the program.

Based on the IMPEP evaluation criteria, the review team recommends that New Hampshire's performance with respect to the indicator, Technical 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 16 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: industrial radiography, manufacturing, medical institution (diagnostic, therapy, brachytherapy, and high dose afterloader), academic broad scope, research and development, calibration service, fixed gauge, and portable gauge licenses. Types of licensing actions selected for evaluation included two new licenses, 12 amendments to existing licenses, and two license 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. The review team noted that the Section Supervisor would prepare guidance for new materials uses or modalities for use by the staff and/or licensees to ensure that licensing actions properly addressed health and safety issues. Complicated deficiencies were addressed in letters and telephone conversations were used to document simple deficiencies and placed in the license file. The review team noted that the staff had access to standard deficiency paragraphs but they were not always used. Additional impact on the timeliness of licensing actions included: 1) the delay in assignment of actions to individual reviewers; 2) the rotation of staff between the Section and the Radiation Machine Section every two months during which time, the reviewer only conducts regulatory activities in the Radiation Machine Section; and 3) the staff turnover during the review period. The review team found that seven of the 14 amendments and new actions reviewed took more than six months to

complete (range of seven to 32 months).

The Bureau has a policy to review and renew licenses in their entirety every seven years. Licenses are administratively renewed on an annual basis by issuing an amendment to the license that updates the expiration date. This “simple renewal” is handled by the Bureau’s clerical staff with review by the Section Supervisor. The review team noted that the Bureau has not conducted renewals of licenses during the review period. Some licenses were last reviewed in the late 1980s, listed a large number of documents in the tie-down condition, and referenced portions of the regulations that are now superseded. The Section Supervisor indicated that full technical reviews of licenses were not done due to the backlog of new and amendment actions as well as staffing issues. The team reviewed several licenses to determine if there were any health and safety implications from the lack of license renewals during the review period. The review team did not find any health and safety implications with the exception that the State’s two academic broad scope licensees were authorized radioactive material in quantities requiring financial assurance for decommissioning but no financial assurance was submitted to the State. Upon further evaluation by the review team and discussion with the Section Supervisor, these licensees do not actually possess quantities of radioactive materials requiring financial assurance for decommissioning. The Section Supervisor stated that action will be taken to either have these licensees submit financial assurance or reduce their possession limits to levels such that it is not required.

The review team found that the New Hampshire program is addressing health and safety issues during the licensing process. Notwithstanding the quality of the licensing demonstrated by the New Hampshire program, the review team believes that the problems with timeliness of new and amendment licensing actions and the lack of a full review of a licensee’s radiation safety program on a periodic basis (i.e., license renewal) could result in health and safety issues not being addressed. The review team believes that the evaluation of the business processes in the licensing area as part of the recommendation in Section 3.3 should address the goals of improving timeliness and renewing licenses in full accordance with the Bureau’s policy.

Deficiency letters are signed by the reviewer after discussion or review with the Section Supervisor. The Section Supervisor documents his review of all licensing actions to ensure that all health and safety issues are addressed. All licenses evaluated were signed by the Bureau Administrator or the Section Supervisor. The Bureau has recently started to issue amended licenses in their entirety which is superseding the long-standing practice of issuing supplemental sheets which only addressed the amended portions of the license.

The team found that actions involving terminated licenses were well documented, and included the appropriate material survey records. All files reviewed contained documentation of proper disposal or transfer. No potentially contaminated sites formerly licensed by NRC have been identified in New Hampshire.

Based on the IMPEP evaluation criteria, the review team recommends that New Hampshire’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 Bureau’s actions in responding to incidents, the review

team examined the Bureau's response to the questionnaire relative to this indicator, evaluated selected incident files since the last review, including those reported for New Hampshire in the NMED against those contained in the Bureau's casework and license files, and supporting documentation, as appropriate for eight incidents. A listing of the incident casework examined with case-specific comments is included in Appendix E. The team also reviewed the Bureau's response to eight allegations involving radioactive materials including one allegation referred by the NRC during the review period.

The review team discussed incident and allegation procedures, file documentation, the Bureau's incident and allegation tracking system, NMED, and notification of incidents to the NRC Operations Center with the Bureau management.

The team found that responsibility for initial response and follow-up actions to materials incidents and allegations rest solely with the Bureau. The Supervisors from both the Section and the Radiation Machine Section and other staff as appropriate, evaluate incidents to determine the appropriate response. Bureau management evaluate all complex incidents, and those with potential for affecting public safety.

The Bureau's files contained documentation on 17 materials incidents during the review period, seven of which were reportable in the NMED system. Eight casework incidents selected for review included: two misadministrations; two calibration errors; three incidents involving contaminated scrap metal; and the recovery of a generally licensed gauge. The review team found that the Bureau'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 Bureau dispatched inspectors for on-site investigations when appropriate, and took suitable enforcement and follow-up actions. Actions were coordinated with other agencies, as appropriate, and the team determined that all incidents required to be reported, were reported to the NMED contractor and the NRC as appropriate.

The Bureau has a current copy of the Handbook of Office of State and Tribal Programs (STP) Procedure SA-300, "Reporting Material Events," for use. However, because of recent turnovers in the Section staff, the Section Supervisor is currently the only person trained on submitting incident reports to NMED. The team noted that the Bureau's Incident and Allegation Tracking System is currently not being utilized, and the Incident File Index has not been updated since the last entry on October 16, 1998 because of staff turnover and higher priority work. Although no performance issues were identified by the review team associated with the lack of use of the Section's data systems for incidents and allegations, the review team was concerned about the management oversight of activities conducted under this indicator. The review team believes that as the Bureau examines its business processes to improve efficiencies and effectiveness of the program, that activities under this indicator should also be reviewed to improve and update practices. As part of the training plan recommended in Section 3.3, the review team discussed the need to provide training in STP Procedure SA-300 for new staff with the Bureau management.

During the review period, one allegation was referred to the Bureau by the NRC, and the Bureau received seven allegations directly. All allegations were reviewed by the team. The casework indicated that the Bureau took prompt and appropriate action in response to the concerns raised and made every effort to protect the alleged's identity. All of the allegations reviewed were appropriately closed with written letters to the alleged, as appropriate. The team

noted that allegations were treated and documented internally in the same manner as incidents. There were no performance issues identified from the review of the allegation files and documentation.

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

#### 4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing Agreement State programs: (1) Legislation and Program Elements Required for Compatibility, (2) Sealed Source and Device Evaluation Program, (3) Low-Level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. The New Hampshire Agreement State Program does not cover uranium recovery operations, 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

In evaluating this indicator, the team reviewed the Bureau's response to the questionnaire and copies of legislation, and held discussions with the Bureau Administrator and the Section Supervisor. The Department is authorized as the State's radiation control agency under the New Hampshire Revised Statutes Annotated (RSA) 1990, Chapter 125. The radiation control program is administered by the Bureau. No changes have occurred in the legal authority of the Bureau since the previous review.

###### 4.1.2 Program Elements Required for Compatibility

The New Hampshire Rules for Control of Radiation pertaining to radiation control apply to all ionizing radiation, whether emitted from radionuclides or devices. New Hampshire requires a license for possession, and use, of all radioactive materials.

The review team examined the procedures used in the Section's regulatory process and found that the public and other interested parties are offered an opportunity to comment on proposed regulations. The NRC is provided with drafts for comment. After preparation of a package of draft regulations by the Bureau, the regulations require approval by the Department Commissioner and are provided to the public for comment, including licensees and the NRC. Final approval of all regulations is done by the Joint Legislative Committee on Administrative Rules. Rule promulgation typically requires six to 12 months. Final regulations in New Hampshire are subject to sunset law and rules expire exactly eight years after adoption. After expiration, these regulations must be resubmitted in their entirety to remain in effect. For example, the major revision of Standards for Protection Against Radiation (10 CFR Part 20) adopted by the State in 1995 will expire in 2003.

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

Regulations Assessment Tracking System. Since the last IMPEP review, the State adopted 14 regulations in two rule packages that became effective in August 1998 and February 1999.

The following nine regulations are overdue. 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 Bureau will need to promptly address these regulations in upcoming rule making or by adopting alternate legally binding requirements.

- “Timeliness in Decommissioning of Materials Facilities,” 10 CFR Parts 30, 40 and 70 amendments (59 FR 36026) that became effective August 15, 1994.
- “Low-Level Waste Shipment Manifest Information and Reporting,” 10 CFR Parts 20 and 61 amendments (60 FR 15649 and 60 FR 25983) that became effective March 1, 1998. Agreement States were expected to have an equivalent rule effective on the same date, and this rule is designated as category B for compatibility.
- “Termination or Transfer of Licensed Activities: Recordkeeping Requirements,” 10 CFR Parts 20, 30, 40, 61, 70 amendments (61 FR 24669) that became effective June 17, 1996.
- “Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act,” 10 CFR Part 20 amendment (61 FR 65120) that became effective January 9, 1997.
- “Recognition of Agreement State licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State,” 10 CFR Part 150 amendment (62 FR 1662) that became effective February 27, 1997.
- “Criteria for the Release of Individuals Administered Radioactive Material,” 10 CFR Parts 20 and 35 amendments (62 FR 4120) that became effective May 29, 1997. Portions of the Part 20 amendment are designated as category A for compatibility.
- “Radiological Criteria for License Termination,” 10 CFR Parts 20, 30, 40, and 70 amendments (62 FR 39057) that became effective August 20, 1997. Parts of this amendment are designated as A or B for compatibility.
- “Deliberate Misconduct by Unlicensed Persons,” 10 CFR Parts 30, 40, 61, 70, 71, and 150 (63 FR 1890; 63 FR 13733) that became effective on February 12, 1998.
- “Minor Corrections, Clarifying Changes, and a Minor Policy Change,” 10 CFR Parts 20, 35, and 36 amendments (63 FR 39477; 63 FR 45393) that became effective October 26, 1998.

The Bureau will need to address the following four regulations in upcoming rule makings or by adopting alternate legally binding requirements:

- “Transfer for Disposal and Manifests: Minor Technical Conforming Amendment,” 10 CFR Part 20 amendment (63 FR 50127) that became effective November 20, 1998.



- “Respiratory Protection and Controls to Restrict Internal Exposures,” 10 CFR Part 20 amendment (64 FR 54543; 64 FR 55524) that became effective February 2, 2000.
- “Energy Compensation Sources for Well Logging and Other Regulatory Clarifications,” 10 CFR Part 39 amendment (65 FR 20337) that became effective May 17, 2000.
- “New Dosimetry Technology,” 10 CFR Parts 34, 36, and 39 amendments (65 FR 63749) that became effective January 8, 2001.

The review team determined that the State has currently not adopted 13 NRC amendments to regulations required for compatibility. Eight of these amendments are overdue and will be adopted in a time frame greater than three years after the effective date of their adoption by the NRC. Three of these eight amendments are designated as A or B for compatibility as indicated above, and the “Low-Level Waste Shipment Manifest Information and Reporting,” amendment requires that an Agreement State adopt the amendment in the same time frame as the NRC but no later than six months after the effective date of the NRC amendment.

The review team concluded the delay in the promulgation of regulations in a timely fashion was caused in part by the high turnover in staff which requires the Section Supervisor and Bureau Administrator to divert their time and efforts to other essential program elements such as licensing, inspection, incident response, and training of new staff. The review team recommends that the Bureau develop and implement an action plan to adopt NRC regulations in accordance with current policy on adequacy and compatibility.

Based on the IMPEP evaluation criteria, the review team recommends that New Hampshire’s performance with respect to the indicator, Legislation and Program Elements Required for Compatibility, be found unsatisfactory.

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

The team did not evaluate the Bureau's SS&D program during this review. Although New Hampshire currently has responsibility for this area, the Bureau 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 Bureau had not issued any SS&D sheets during this period of review.

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

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Authority and Assumption Thereof by States Through Agreement" to allow a State to seek an amendment for the regulation of LLRW as a separate category. Those States with existing Agreements prior to 1981 were determined to have continued LLRW disposal authority without the need of an amendment. Although New Hampshire has LLRW disposal authority, NRC has not required States to have a program for licensing a LLRW disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, they are expected to put in place a regulatory program which will meet the criteria for an adequate and compatible LLRW disposal program. There are no plans for a LLRW disposal facility in New Hampshire. Accordingly, the review team did not

review this indicator.

## 5.0 SUMMARY

As noted in Sections 3 and 4 above, the review team found New Hampshire's performance to be satisfactory with respect to the indicators, Technical Quality of Inspections, Technical Quality of Licensing Actions, and Response to Incidents and Allegations. The team found New Hampshire's performance to be satisfactory with recommendations for improvement for the indicator, Technical Staffing and Training. The team found New Hampshire's performance to be unsatisfactory for the indicators Status of the Materials Inspection Program and Legislation and Program Elements Required for Compatibility. Accordingly, the review team recommended and the MRB concurred in finding the New Hampshire Agreement State Program to be adequate, but needs improvement and not 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 in implementing corrective actions discussed at the MRB meeting. The MRB requested the State prepare and submit a program improvement plan which addresses the recommendations below. The MRB also requested that the State submit bi-monthly status reports and participate in bi-monthly conference calls to discuss the progress to date on the State's action plan. The initial conference call should be scheduled no later than January 7, 2002. Due to the events of September 11, 2001, the MRB directed that the follow-up review be conducted approximately one year from the date of the October 26, 2001 MRB meeting.

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

### Recommendations:

1. The review team recommends that the process for extending inspection frequency for good licensee performance be clearly defined and that the Bureau maintain documentation of inspection extensions. (Section 3.1)
2. The review team recommends that the Bureau take the appropriate management measures to conduct inspections (both initial and core) in accordance with the State's established inspection priority system. (Section 3.1)
3. The review team recommends that the Bureau document a training plan for personnel that is consistent with the guidance provided in the NRC/Organization of Agreement States Training Working Group Report or the NRC IMC 1246. (Section 3.3)
4. The review team recommends that the Department take the necessary actions to address the staff turnover and staff vacancies as appropriate. (Section 3.3)
5. The review team recommends that the Bureau examine and change the business processes and organization of the Section to improve the effectiveness and efficiency of the program. (Section 3.3)
6. The review team recommends that the Bureau develop and implement an action plan to adopt NRC regulations in accordance with current policy on adequacy and

compatibility. (Section 4.1.2)

## LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	New Hampshire Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Attachment	August 23, 2001 Letter from Donald L. Shumway New Hampshire's Response to Draft IMPEP Report

APPENDIX A  
IMPEP REVIEW TEAM MEMBERS

<b>Name</b>	<b>Area of Responsibility</b>
Richard L. Woodruff, NRC/RII	Team Leader Technical Staffing and Training Response to Incidents and Allegations
Duncan White, NRC/RI	Inspector Accompaniments Technical Quality of Licensing Actions Legislation and Program Elements Required for Compatibility
James Peterson, SC	Status of Materials Inspection Program Technical Quality of Inspections

APPENDIX B

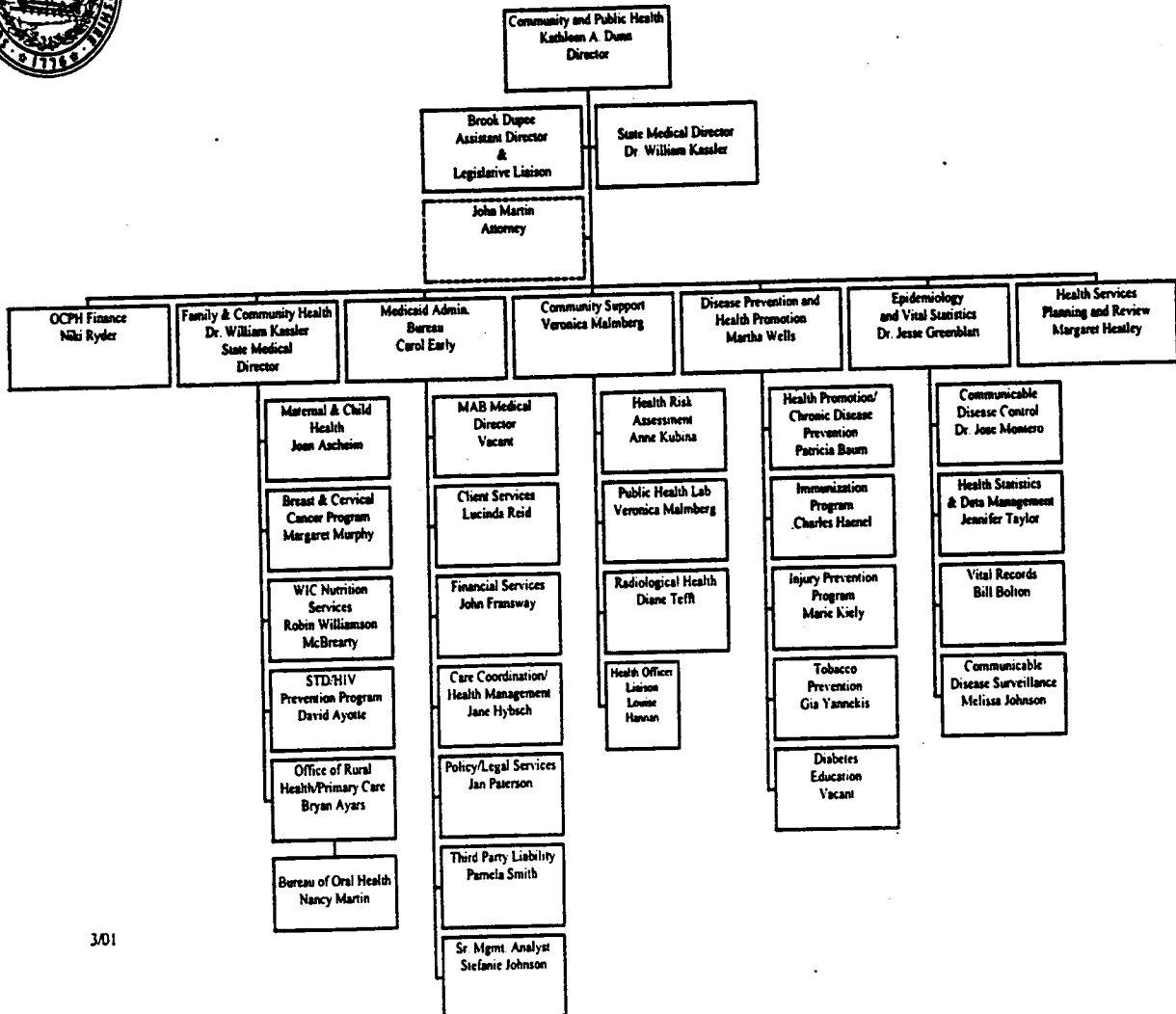
DEPARTMENT OF HEALTH AND HUMAN SERVICES

ORGANIZATIONAL CHARTS

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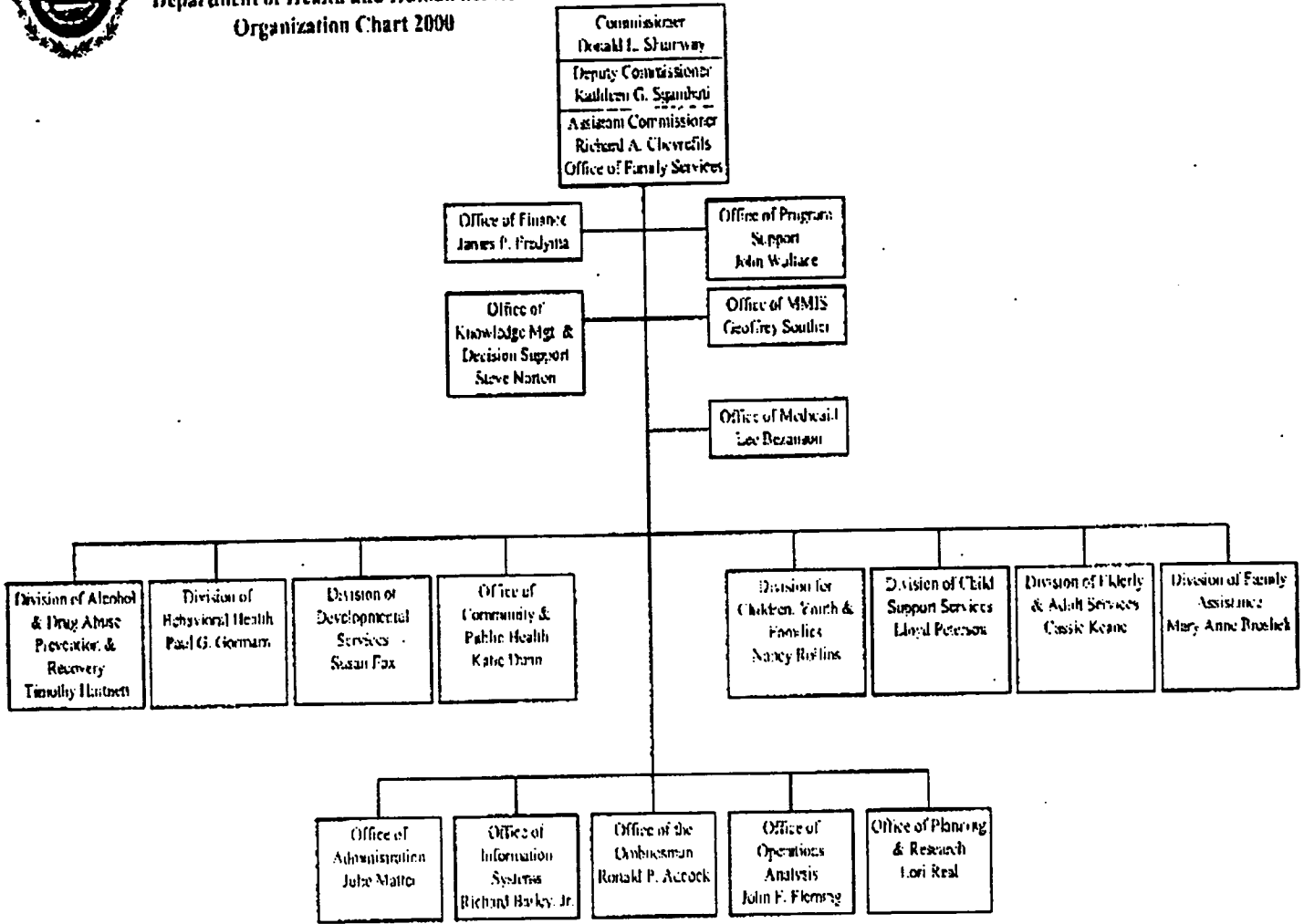


State of New Hampshire  
 Department of Health and Human Services  
 Office of Community and Public Health



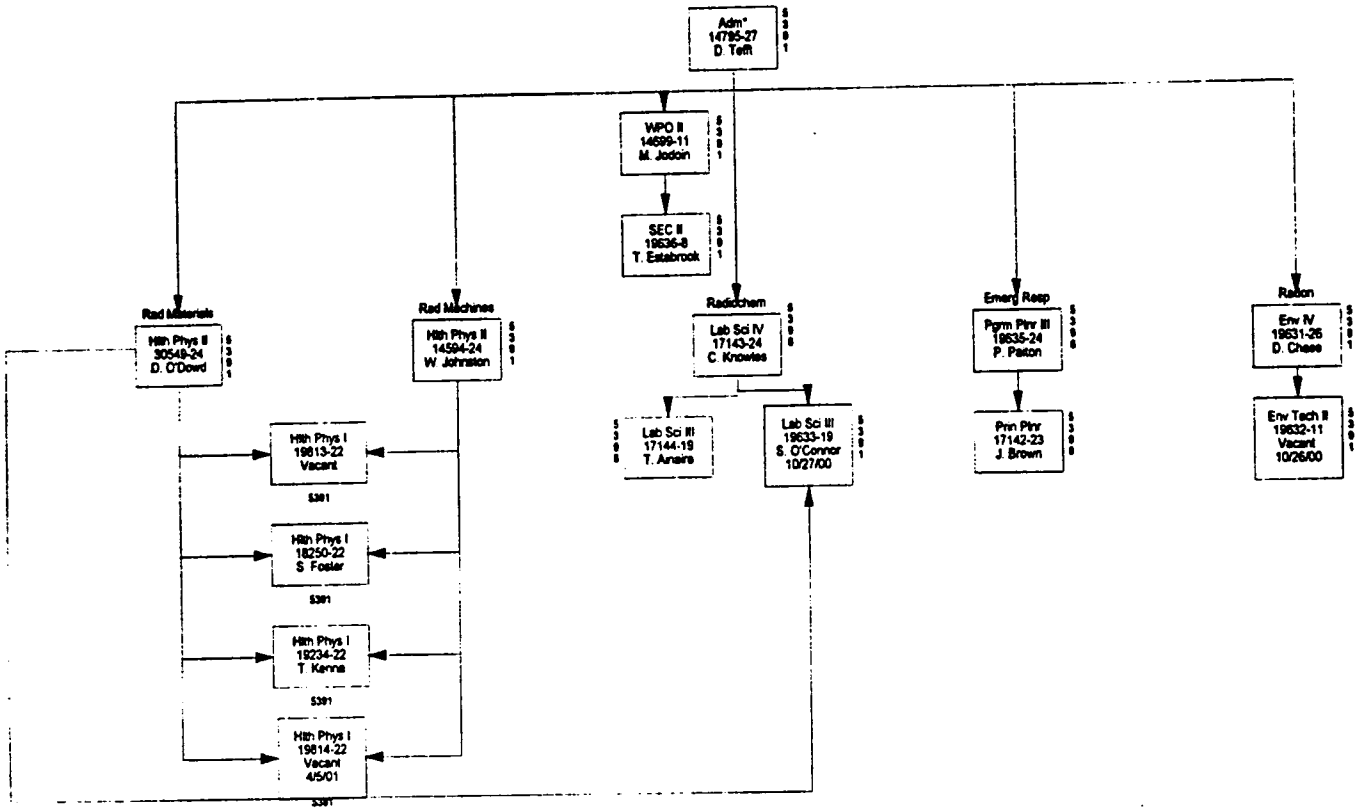


State of New Hampshire  
Department of Health and Human Services  
Organization Chart 2000





**Community and Public Health**  
**Community Support - Bureau of Radiological Health**



\*Official Title=Chief, Public Health Bureau

Attachment

August 23, 2001 Letter from Donald L. Shumway  
New Hampshire's Response to Draft IMPEP Report

ML012400076



STATE OF NEW HAMPSHIRE  
DEPARTMENT OF HEALTH AND HUMAN SERVICES

129 PLEASANT STREET, CONCORD, NH 03301-3857  
603-271-4688 FAX: 603-271-4912 TDD Access: 1-800-735-2964

Donald L. Shumway  
Commissioner

Kathleen G. Sgambati  
Deputy Commissioner

August 23, 2001

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

Dear Mr. Lohaus:

We have completed the review of the draft Integrated Materials Performance Evaluation Program (IMPEP) report dated July 27, 2001. Attached are our comments correcting or clarifying a few items contained within. Should you require further discussion on these items, I invite you to contact either Mr. Dennis O'Dowd or Ms. Diane Tefft of the Bureau of Radiological Health at (603) 271-4588.

It is my understanding that the IMPEP review team will present its findings of the June 25-29, 2001 NH Agreement State Program review to the Management Review Board on September 11, 2001. NH intends to fully participate in this final review process by having technical and administrative staff available to address any of the Board's concerns. The NH Program will also be responsive to any findings or recommendations the Board may have.

I thank you and your staff for the very thorough IMPEP review of the NH Agreement State Program.

Sincerely,

Donald L. Shumway  
Commissioner

Enclosure

cc: John Wallace, Deputy Commissioner, DHHS  
Kathleen A. Dunn, MPH, Director, Office of Community and Public Health, DHHS  
Veronica Malmberg, Director, Division of Community Support, OCPH  
Diane E. Tefft, Administrator, Bureau of Radiological Health, DHHS  
Woodbury P. Fogg, State Liaison Officer, Director, Office of Emergency Management

SFO

**COMMENTS**

**DRAFT REPORT OF INTEGRATED PERFORMANCE EVALUATION PROGRAM (IMPEP)**

**REVIEW OF NEW HAMPSHIRE AGREEMENT STATE PROGRAM  
JUNE 25-29, 2001**

The following comments are submitted for review and further discussion as to their appropriateness:

**Page 4, first paragraph, last sentence "The Section Supervisor also committed that all of the overdue inspections would be completed prior to the end of this calendar year."**

**COMMENT:** Since the time of the review and publication of this draft report, a second Health Physicist I position has become vacant. Therefore, the statement above is no longer valid.

**Page 6, top of page, Section 3.3 Technical Staffing and Training**

**COMMENT:** With reference to the Bureau Administrator's membership on the State Radiation Advisory Committee (SRAC), it should be clarified that this individual is not a member of the Committee but instead is assigned by statute as the Technical Secretary to the Committee and as such is an *ex officio* member.

**Page 12, Section 4.1.2 Program Elements Required for Compatibility, "Criteria for the Release of Individuals Administered Radioactive Material"**

**COMMENT:** Our understanding is that only a portion of the regulations cited are matters of Category A compatibility.