

December 11, 2002

Grant K. Higginson, M.D.  
Acting Administrator  
Department of Human Services  
Office of Health Services  
800 NE Oregon Street, Suite 260  
Portland, OR 97237

Dear Dr. Higginson:

On December 3, 2002, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Oregon Agreement State Program. The MRB found the Oregon program adequate to protect public health and safety and compatible with the Nuclear Regulatory Commission's (NRC) program.

Section 5.0, page 17, of the enclosed final report presents the IMPEP team's recommendations for the State of Oregon. We request your response to the recommendations within 30 days of your receipt of this letter.

Please note that Oregon's practice of issuing advanced authorization for licensing actions as a generic business practice, after an informal health and safety evaluation, is discussed in Section 3.4. Although this practice is not expressly prohibited, absent well-defined parameters, it appears to be questionable because the practice lacks the formality of an approved procedure. At the December 3, 2002 MRB meeting, the MRB and Oregon program management discussed discontinuing routine use of this practice until it is fully proceduralized and its legality is confirmed.

Based on the results of the current IMPEP review, the next full review will be in approximately four years.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. We appreciate your continued support for the Radiation Control Program and the excellence in program administration demonstrated by your staff as is reflected in the team's findings. 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: Terry Lindsey, Manager  
Radiation Protection Services

Roland Fletcher, MD  
OAS Liaison to MRB

David Stewart-Smith  
State Liaison Officer

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF OREGON AGREEMENT STATE PROGRAM

AUGUST 26-30, 2002

**FINAL REPORT**

U.S. Nuclear Regulatory Commission

## 1.0 INTRODUCTION

This report presents the results of the review of the Oregon Agreement State program. The review was conducted during the period August 26-30, 2002, by a review team consisting 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 of August 14, 1998 to August 25, 2002, were discussed with Oregon management on August 30, 2002.

A draft of this report was issued to Oregon for factual comment on October 16, 2002. The State responded by letter dated November 14, 2002. The Management Review Board (MRB) met on December 3, 2002 to consider the proposed final report. The MRB found the Oregon radiation control program was adequate to protect public health and safety and compatible with NRC's program.

The Oregon Agreement State program is administered by the Department of Human Services, Office of Public Health Systems (the Office), Radiation Protection Services Section (the Section). The Section Manager reports to the Acting Administrator for the Office. The Section is the designated radiation control agency. Organization charts for the Department of Human Services are included as Appendix B. At the time of the review, the Oregon Agreement State program regulated 403 specific licenses authorizing Agreement materials. 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 Oregon.

In preparation for the review, a questionnaire addressing the common and non-common performance indicators was sent to the Section on April 30, 2002. The Section provided a response to the questionnaire on August 9, 2002. A copy of the questionnaire response can be found on NRC's Agencywide Document Access and Management System using the Accession Number ML022800319.

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

Section 2 below discusses the State's actions in response to recommendations made following the previous IMPEP 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.

Recommendations made by the review team are comments that relate directly to program performance by the State. A response is requested from the State to all recommendations in the final report.

## 2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded August 13, 1998, six recommendations were made and transmitted to Ms. Elinor Hall, Administrator, Office of Health Services, on October 28, 1998. The team's review of the current status of the recommendations are as follows:

### RECOMMENDATIONS

1. The team recommends that Oregon continue to implement its policy for inspecting new licenses.

Current Status: During the November 18, 1999 periodic meeting, the Section recognized that they were behind in conducting some initial inspections within the six months guidance criteria in IMC 2800; however, they were fully staffed at the time and had plans to complete the overdue new license inspections by January 2000. The review team found that since November 1999, the Section again lost a significant portion of their staff. The Section has now replaced the lost personnel. They have, once again, managed to catch up with inspecting new licenses at the time of this IMPEP review. In spite of the staff turnover, the Section has implemented its policy of inspection of new licensees. This recommendation is closed.

2. The review team recommends that the Section's management assess whether additional staffing is warranted to complete overdue rulemaking actions and to ensure timely completion of upcoming rulemaking actions.

Current Status: The Section was found to be fully staffed during the November 1999 periodic meeting. As noted in Section 3.3, the Section lagged behind in rulemaking since the 1999 periodic meeting due to a loss of personnel. The review team found that rulemaking was not performed until shortly before this review. The Section is now fully staffed and a procedure is now in place to cause an annual assessment of regulation status to help keep the Section on track with future rulemaking initiatives. The Section indicated that additional staffing designated specifically for rulemaking is unwarranted. This recommendation is closed.

3. The review team recommends that the Section adopt the NRC standard practice license conditions for high dose rate afterloaders (HDR) units for the casework #11 license and future HDR licenses.

Current Status: The Section has adopted the NRC standard practice license conditions for HDR units. This recommendation is closed.

4. The review team recommends that the Section develop a written policy with procedures for responding to allegations.

Current Status: The Section has developed and implemented a written policy with procedures for responding to allegations. This recommendation is closed.

5. The review team recommends that management obtain a Section legal view on their interpretation that existing administrative rules require the implementation of all new requirements in the revised NRC regulations where required for compatibility purposes.

Current Status: The Section Manager stated that a legal review is a part of the administrative process for rulemaking. This recommendation is closed.

6. The review team recommends that the Section initiate rulemaking activities to ensure that NRC rule changes are adopted within the specified 3-year time period.

Current Status: During the 1999 periodic meeting, the Section Manager committed to having all of the rule changes completed before September 2000. However, due to management and staff turnover, the Section was not able to meet the September 2000 commitment. The Section submitted 25 draft rules to the NRC on August 26, 2002 and NRC provided draft comments to the Section on October 7, 2002. Upon receipt of NRC's final comments on the Section's draft rules, the Section indicated that they will make the necessary changes to the draft rules within 7 to 10 days. The rules will be administratively reviewed by Public Health Systems before being sent to the Department of Health Services (the Department). The rules will become effective upon signing by the Department Director, or designee, and their filing with the Secretary of State. The Section expects the rules to be effective in December 2002. The Section's new procedures, that require an annual review of the Section's regulation status, will help assure rules are adopted in a timely manner. This recommendation is closed.

During the 1998 review, eight suggestions were made for the Section to consider. The review team determined that the Section considered the suggestions 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 relative to the indicator, 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's review of the Section's inspection priorities verified that inspection frequencies for various types of Oregon material licenses are the same as those listed in the NRC Inspection Manual Chapter (IMC) 2800. In their response to the questionnaire, the Section indicated that

there were no overdue inspections. This information was verified during the inspection casework reviews of core licensees. The Section maintains a licensee database that provides current inspection data. The licensee database contains sufficient information for proper management of the inspection program.

Due to a loss and turnover of management and staff during the review period, as discussed in Section 3.3, all inspections were not conducted at the required frequency during the review period. Specifically, based on data provided by the Section, the review team determined that during the review period, the Section had 21 of 58 core inspections that were conducted overdue by more than 25% of the NRC frequency. In addition, the team identified that five of six initial inspections did not meet the NRC inspection frequency for initial inspections, ranging from one to four months overdue. The review team determined that 30% of the core inspections were conducted at intervals that did not meet NRC inspection frequency guidance. There was no apparent health and safety impact due to the extension of the inspections. The Section fully recovered from the loss of staff in the inspection program by September of 2001. There were no overdue core inspections at the time of the review.

IMPEP criteria allows that in programs where management addresses deficiencies and completes actions to deal with overdue inspections and other aspects affecting the status of the materials inspection program, a finding of satisfactory is supported as opposed to a satisfactory with recommendations for improvement or an unsatisfactory finding. Section management was aware of the backlog of inspections and took mitigating actions such as hiring and training new staff, prioritizing inspections, and balancing staff workload to bring the program up-to-date at the time of the review. Health and safety issues were considered in the assignment of inspections, and the Section's knowledge of licensee's performance history was also considered in the decision process for deferring inspections. The actions taken by the Section were effective in that there are no overdue inspections currently and current staffing appears adequate to maintain inspection frequencies. Consequently, the review team believes that a rating of satisfactory is appropriate for this performance indicator. The review team found the Section's considerable efforts to hire and train new inspectors and reduce the inspection backlog commendable.

The review team noted that the Section is performing inspections of materials licensees on an unannounced basis, except for initial inspections. Fourteen inspection files were reviewed for report timeliness. All inspection field notes are signed by the Section Manager. The Section routinely uses the State's Safety Inspection Form 591 for inspection documentation. In most cases the Form is left with the licensee at the conclusion of the inspection. Occasionally, inspectors issued the Form from the office. All inspection reports reviewed were timely issued.

Out-of-state licensees that frequently perform work in Oregon are provided the option of requesting an Oregon State license or filing for reciprocity. A company is not required to have a business address in Oregon to obtain an Oregon license. The license application process simply consists of a review of their home State or NRC license. Each license includes a special condition that requires notification to the Section before the licensee enters the State to do work using licensed material. If the licensee has not entered the State within six months after the out-of-state license is issued, the licensee is mailed an "inspection by mail" form which is mailed back to the Section and is considered an inspection. When the licensee

notifies the Section that they are entering the State to do work, the Section conducts inspections in the field if possible. The license is renewed annually by payment of a fee.

Out-of-state licensees that infrequently perform work in Oregon may choose to file for reciprocity. In these cases, the licensees are identified in the Section database using license numbers that are coded to indicate that reciprocity is granted on each occasion work is to be performed in Oregon. When the licensee notifies the Section that they are entering the State to do work, the Section conducts inspections in the field if possible.

During the review period, the Section granted 105 reciprocity licenses, of which, 61 licenses were core licensees based upon IMC 1220. The 61 core licensees consisted of 21 Priority 1, two Priority 2, and 38 Priority 3 licensees. The Section met the IMC 1220 inspection frequencies for Priority 1 licensees by conducting 13 inspections, for Priority 2 licenses by conducting two inspections, and for Priority 3 licenses by conducting 22 inspections. The new NRC guidance requires totaling all of the Priority 1, 2, and 3 reciprocity (core) licensees, and conducting inspections of 20% of this total. Thus, the Agency met the revised NRC guidance by completing 37 inspections of the 61 licenses issued for core licensees. The review team concluded that the Section's performance with respect to reciprocity inspections is noteworthy.

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

### 3.2 Technical Quality of Inspections

The team evaluated the inspection reports, enforcement documentation, and inspection field notes and interviewed inspectors for 14 radioactive materials inspections conducted during the review period. The casework reviewed included all of the Section's materials license inspectors, and covered inspections of various types including fixed gauges, industrial radiography, medical (diagnostic, therapy, and brachytherapy), radiopharmacy, 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. Team inspections were performed when appropriate and for training purposes. The review team found that inspection reports were thorough, complete, and consistent, with sufficient documentation to ensure that licensees' performance with respect to health and safety was acceptable. The documentation adequately supported cited violations, recommendations made to licensees, unresolved safety issues and discussions held with licensees during exit interviews.

Accompaniments of three inspectors were conducted by a review team member during the week of May 14, 2002. The inspectors were accompanied during inspections of a nuclear medicine facility, a fixed gauge facility, and a radiopharmacy. 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

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. During the review period, management accompanied all individuals who performed materials inspections.

The Section has an adequate number and types of survey meters to support the current inspection program as well as for responding to incidents and emergency conditions. The Office has a local University calibrate their survey instruments. Appropriate, calibrated survey instruments such as GM meters, scintillation detectors, ion chambers and micro-R meters were observed. Air monitoring equipment is also available for emergency use. The Section has a liquid scintillation counter and two gamma spectrometers.

Based on the IMPEP evaluation criteria, the review team recommends that Oregon'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 Section'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 Section's questionnaire responses relative to this indicator, interviewed Section's management and staff, reviewed job descriptions and training records, and considered any possible workload backlogs.

At the time of the last IMPEP review in late 1998, the Oregon's staffing was found to be adequate with respect to this indicator. Shortly thereafter, due to retirement of two very experienced managers who had been with the program for considerable time, the program became seriously understaffed. From mid-1999 to approximately mid-2000, the program was seriously shorthanded at both the upper management and the staff level. The transition of senior staff members to the upper management positions and the consequent need to backfill the now newly vacated staff positions took about 3 years to complete. This process was well thought out. The process resulted in two experienced senior staff members moving up to greater responsibilities and challenges in program management. In addition, the hiring of well qualified individuals brought the staff up to its full complement. The review team found, at the time of this review, the program to be fully staffed with experienced, technically qualified individuals.

The Section is headed by a Section Manager and an Assistant Manager for Radioactive Materials and the Laboratory. The radioactive materials licensing and laboratory program staff consists of a Licensing Specialist and three Environmental Health Specialists. An Emergency Response Supervisor and an Environmental Health Specialist also support the radioactive materials program. The Section is supported by an Administrative Assistant and a Clerical Specialist.

In 2000, the Section's management recognized a need for developing a computerized program for managing the day-to-day regulatory responsibilities of a complex program. As a result, a technical staff position was converted to an information technology/information management (IT/IM) programmer position. The new IT/IM programmer would facilitate the development,

implementation and maintenance of an integrated program to facilitate the management of all aspects of the regulatory program. Additionally, the Section's IT program is a "force multiplier" as it leverages the ability of the staff to efficiently carry out inspection and licensing activities while providing a powerful tool for the effective management of program resources. A programmer was hired about mid-2000 who worked exclusively in developing and refining the computer program now used by the Section. In mid-2002, all IT/IM management positions were transferred to a newly reorganized IT/IM office. The Section's programmer was lost as a result. Not only did the Section lose its programmer but it could not reclaim the position by converting back to a technical staff position.

The team observed that the Section had expended considerable effort to make up the staffing shortfall that occurred during the 1999 to 2001 time period. A significant part of the recovery of this program is identified with the development of the program management software specifically designed to enable the Section to perform its mission efficiently and effectively. The team notes that the loss of the full time, dedicated IT/IM programming support has delayed the development of new program modules and program enhancements. The lack of a dedicated IT programmer has the potential to compromise the significant advances the Section has made in the area of program management during the last 2 years and may cause a loss of efficiency and effectiveness within the program. At the time of the review, the review team found that the Section has overcome significant difficulties in the areas of inspection, staffing, and rulemaking, and the specifically designed program and the role of the Section's dedicated programmer in this success should not be overlooked. The review team recommends that the Section complete development of the program management software and continue to maintain capability in this area which is vital to successful performance of the program.

The Section has a well thought out and effective training plan for new employees. It is the Section's policy to provide training using NRC-sponsored training courses as much as possible. Although they are funded for training over the next 12 to 18 months, the Section does maximize its training dollar by attempting to utilize "space available" NRC training whenever possible thus saving their resources for travel expenses. The execution of the individual training plans appears to be suitable and appropriate for the needs of the individual and the Section. All new employees have received training that augments their work experience. The Section's training philosophy includes a concept of balancing the formal training and work experience with training experiences to allow the employee to develop a firm understanding of the health, safety and regulatory issues in a specific area before moving on to new challenges.

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

### 3.4 Technical Quality of Licensing Actions

The review team interviewed license reviewers, evaluated the licensing process, and examined licensing casework for 24 license files found in Appendix D. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequate facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of the

license conditions, and overall technical quality. The casework files were also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, product certifications, supporting documentation, consideration of enforcement history, pre-licensing visits, supervisory review as indicated, and proper signatures. 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, which were completed during the review period. Due to the Section's loss of personnel early in the review period and consequent re-staffing of the Section, casework for licenses issued within the past 2 years was given specific emphasis. The cross-section sampling focused on the Section's new licenses, amendments, renewals, and licenses terminated during the review period. The sampling included the following types: academic, broad medical, research and development, special nuclear material, industrial radiography, portable gauges, institutional nuclear medicine, private clinics, mobile nuclear medicine, radioisotope and sealed source radiotherapy; and nuclear pharmacies. Licensing actions reviewed included 10 new, one renewal, nine amendments and four termination files. A listing of the casework licenses evaluated with case specific comments can be found in Appendix D.

Overall, the review team found that the licensing actions were thorough, complete, consistent, and of acceptable quality with health and safety issues properly addressed. License tie-down conditions were stated clearly, backed by information contained in the file and inspectible. License reviewers utilize standard licensing conditions, and issue a complete license for each licensing action. Pending completion of rulemaking, license conditions were incorporated to address compatibility issues.

The Section has one senior staff member whose primary responsibility is licensing. At a minimum, each license has a peer review and a management review. Peer reviews are accomplished by inspection staff with expertise in the discipline being licensed. In addition, licenses usually undergo review by the Assistant Program Manager and a final review by the Section Manager. The Section Manager, or his designated representative, signs all licenses. The review team noted that the Section has a very efficient and effective licensing process and will process about 600 licensing actions by year's end.

Since the previous review, the Section has changed the licensing frequency. The Section issues Priority 1, 2, and medical licenses for a five-year period. Other priority licenses are now issued for a ten-year period. Since 1998, the Section adopted an abbreviated renewal process. This new process requires licensees to submit an application form tailored to the license type, verification of their radiological program changes, if any, and reaffirmation of key commitments made as part of the initial licensing process.

The 93 termination actions taken over the review period were for licensees possessing only sealed sources, uses of radiopharmaceuticals with short half-lives, or uses involving radioisotopes in microcurie amounts (e.g., in-vitro labs). The review team found that terminated licensing actions were well documented, showing appropriate transfer records or appropriate disposal methods and records, confirmatory surveys, and survey records. With regard to byproduct material in Oregon, the review team noted that there was only one major decommissioning and review effort being conducted at PCC Structural, Inc. (ORE-90354).

The review team noted that the Section issued advanced authorization for licensing actions as a generic business practice, after an informal health and safety evaluation. Various staff members granted these authorizations which were unspecific as to the requirements imposed on the licensee or applicant. Although this practice is not expressly prohibited, absent well-defined parameters, it appears to be questionable because the practice lacks the formality of an approved procedure.

The review team recommends that the Section discontinue the routine use of advanced authorizations pending development of a procedure and basis for issuing the authorizations. Once developed, the Section should have the practice of issuing advance authorization and the procedure reviewed by counsel and its Radiological Advisory Committee (RAC). The review should include the form and content of the authorizations, the legal basis for issuing notifications prior to issuance of a license, as well as a determination of the potential impact on health and safety. In addition, the review should determine the State's potential liability and the compatibility of the practice with established State and Federal regulations, including requirements imposed on distributors of devices containing radioactive material.

Based on the IMPEP evaluation criteria, the review team recommends that Oregon'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 responses to the questionnaire relative to this indicator, reviewed the incident reports for Oregon in the Nuclear Material Events Database (NMED) against those contained in the Section's files, and evaluated reports and supporting documentation for eleven incidents. A list of the incident casework examined with case-specific comments is included in Appendix E. The review team also reviewed the Section's response to three of four allegations that occurred during the review period. The fourth allegation involved State regulated material.

The incidents selected for review included the following categories: release of radioactive material, lost or stolen radioactive material, overexposure, improper use or disposal of radioactive material, equipment failure, and transportation. The review team found that the Section'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 Section dispatched inspectors for onsite investigations when appropriate, and took suitable enforcement and follow-up actions.

The responsibility for initial response and follow-up actions to materials incidents may be assigned to any member of the Section, however on the incidents reviewed, the Section managers took the lead. Upon receipt, Section staff reviews a report, decides on the appropriate response, and gives the report a unique Section number and logs it into the Section's computer system.

The review team identified 170 incidents in NMED for Oregon during the review period including both byproduct material and other State regulated material. The Section adopted the

Office of State and Tribal Programs (STP) Procedure SA-300. The procedure provides that reports of incidents that require immediate or 24-hour notification be provided to the NRC within one working day of a licensee's notification, and that reports of incidents that require notification within 30 to 60 days be provided to the NRC monthly. However, the State frequently did not meet these timeliness goals.

The review team noted that two events were not reported to the NRC. One event involved the loss of iodine-125 brachytherapy seed(s), that required either 24-hour, or 30-day, notification as these seeds are typically in the millicurie activity range. However, since the activity was not in the report, the notification time frame could have been either 24 hours or 30 days. The Section also was asked to formerly notify NRC of the 24-hour reportable event involving a fixed gauge open shutter failure that occurred on July 9, 2001. The Section agreed to formally notify NRC in writing of these significant reportable events.

The review team also noted that the Section did not properly characterize the immediate closure of radiography operation for health and safety reasons. The closure should have been identified as an Abnormal Occurrence (AO) in NMED. The Section agreed to correct the information in NMED on this event to reflect an AO.

During the recent period from January 2002, to July 2002, a computer problem had caused approximately 27 incident reports to remain with the Section rather than being sent to the NMED contractor. Of these, approximately 8 involved byproduct material. The Section has re-transmitted all reports from this period and previous periods to the NMED contractor on, or about, August 5, 2002. The review team believes the delays in reporting incidents to NMED, prior to this year, were caused by staff shortages, the loss of the full time information technology/health physics position, and an absence of previous data entry quality assurance on the part of the Section.

The review team noted that the Section was providing information to the NMED contractor by way of electronic mail with spreadsheets attached. The NMED format was not used which caused some transmitted information to be overlooked by the contractor. This, along with an incomplete understanding by the Section of their spreadsheet software capabilities, may explain, in part, why numerous NR (Not Reported) notations were observed on the NMED database, especially in the licensee name and license number fields. The Section has committed to use the same terminology identifying incident information categories that NMED had previously adopted. The Section believes this will help lessen the chance of transmitted information from the State being overlooked by the NMED contractor in the future.

In addition, seven of the eleven incidents reviewed appeared to need updated NMED information such as contributing factors, corrective actions, or closure information. The team discussed the procedure for reporting incidents with the Section management. The Section management indicated that they would update the NMED data to include needed information. In addition, the management indicated that they would work to improve data transmission accuracy, and report incidents to NMED in a more timely manner. The review team recommends that Oregon report events requiring greater than 24-hour notification to the NRC on a monthly basis; ensure that all reports through August 2002 have been entered into NMED; correct missing data on all NMED reports submitted; update and closeout previously reported incidents; and resolve data transmittal problems.

It was noted that the Section received, but was not using the latest NMED software, and that all Section staff members had recently completed the new NMED software training. The Section uses their own Access 2000 software to track all radioactive material incidents and allegations.

The team also found that a large effort is required by the Section to review individual NMED reports and close them with the NMED contractor especially for those cases where the Section had previously determined that the information was complete and the case had been closed. At the December 3, 2002 MRB meeting, the team again noted that there are differences in report status between the Section's entries and the reports that appear in NMED. For example, reports that have been submitted as closed are indicated in NMED as open and reports that have been completed are indicated as being incomplete in NMED. Additionally, there is confusion as to who is responsible for determining when an NMED report is complete and when it should be closed. Feedback on the status and quality of the Section's reported events appear to be insufficient to identify and resolve issues within an individual report. The team was unable to resolve these issues. The MRB recommends that the NRC review, in coordination with the States, the issues of data sharing, closing and completing NMED reports, and process used to provide periodic feedback to States on the status of their submittals.

In evaluating the effectiveness of Oregon's actions responding to allegations, the review team examined the Section's questionnaire responses relative to this indicator. The casework for the three allegations involving byproduct material were reviewed. The Section evaluates each allegation using NRC Management Directive 8.8 and determines the proper level of response. The review of files indicated that the Section took prompt and appropriate action in response to the concerns raised. The review 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 casework documentation. The review team noted that access to all public documents is available for inspection and copying unless specifically exempted from disclosure.

Based on the IMPEP evaluation criteria, the review team recommends that Oregon'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. Only the first non-common performance indicator was applicable to this review.

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

###### 4.1.1 Legislation

Along with the Section's response to the questionnaire, the staff provided the review team with the opportunity to review copies of legislation that affects the radiation control program. The current statutory authority for the Section is contained in Oregon Statute 453.625. Oregon Statute 453 governs the use of radioactive materials, x-ray, emergency response and laboratory services. The Section is designated as the State's radiation control agency. The review team noted that no legislation affecting the radiation control program was passed during the review period and the enabling legislation is unchanged since the last review. Oregon has no sunset provisions either for the Section or for its regulations.

#### 4.1.2 Program Elements Required for Compatibility

The review team examined the procedures used in the State's rulemaking process and found that the public and other interested parties are offered an opportunity to comment on proposed regulation changes. Rulemaking responsibility is assigned to the Radioactive Materials Licensing Manager. It was noted that approximately 25 draft regulations were sent to the NRC for review and comment shortly before the onsite review. The Section indicated that NRC comments on the draft regulations will be incorporated when they are received. The team noted that rule adoption has exceeded the three-year requirement since the last IMPEP review in almost all cases. Since the time of the last review, staffing was not adequate for the Section's workload as noted in Section 3.3. Because of the amount of time required to review, draft, revise, hold public hearings and process the proposed rules for adoption, management decided to give rulemaking a lower priority than licensing and overdue inspections which are "health and safety" issues. Once sufficient staff had been hired and trained, the program management proceeded to eliminate the rulemaking backlog. As a result, at the time of the review, 25 regulations had been drafted and submitted to NRC for compatibility review. The Section was provided draft NRC comments on October 7, 2002. The Section expects the rules to be effective in December 2002. One license condition was submitted to NRC for review.

To prevent a reoccurrence of this situation, a new Section policy has been implemented which will result in an annual review of the rulemaking process. During January each year, the Section will review NRC rule changes and will solicit comments from staff and others. Draft changes will be made as necessary and proposed changes will be reviewed by the RAC, as required by State Statute. Final draft regulations will be forwarded for administration review. Public comment period (usually 30 to 45 days) will occur and proposed changes will be distributed to all licensees and interested parties, including the NRC for compatibility review. A public hearing will be conducted and the final proposed rule will be prepared and promulgated. The regulation promulgation will be completed in six to nine months.

The review team evaluated the Office 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 STP's State Regulation Status Data Sheet. Since the previous review, the Section submitted a single rule package containing 25 rules shortly before this review. They will become effective in December 2002. All but two of the regulations submitted are overdue. Two regulations had been enacted previously by legally binding requirements. In addition, the Section was unaware of the need to submit the legally binding requirements to NRC for compatibility review. As a result of discussions with the team, the Section has agreed to submit legally binding requirements to NRC in the future.

As noted previously, the following draft regulations have been reviewed by NRC. Upon receipt of NRC's final comments on the Section's draft rules, the Section will make the necessary changes to the draft rules within 7 to 10 days. The rules will be administratively reviewed by Public Health Systems before being sent to the Department. The rules will become effective upon signing by the Department Director, or designee, and their filing with the Secretary of State. The Section expects the rules to be effective in December 2002.

- ! "Safety Requirements for Radiographic Equipment," 10 CFR Part 34 amendment (55 FR 843) that became effective on January 10, 1991;
- ! "ASNT Certification of Radiographers-Part 34," 10 CFR Part 34 amendment (56 FR 11504) that became effective January 27, 1992;
- ! "Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted Areas and Spill Sites]," 10 CFR Parts 30 and 40 amendments (58 FR 39628) that became effective on October 25, 1996;
- ! "Licensing and Radiation Safety Requirements for Irradiators-Part 36," 10 CFR Part 36 amendment (58 FR 7715) that became effective on July 1, 1996;
- ! "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations," 10 CFR Part 34 amendment (63 FR 37059) that became effective July 9, 1998;
- ! "Transfer for Disposal and Manifests: Minor Technical Conforming Amendment," 10 CFR Part 20 amendment (63 FR 50127) that became effective on October 20, 1998;
- ! "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 17, 1996;
- ! "Minor Corrections, Clarifying Changes, and a Minor Policy Change," 10 CFR Parts 20, 32 and 39 amendments (63 FR 39477 and 63 FR 45393) that became effective October 26, 1998;
- ! "Deliberate Misconduct by Unlicensed Persons," 10 CFR Parts 30, 40, 61, 70, and 150 amendments (63 FR 1890 and 13773) that became effective February 12, 1998;
- ! "Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea," 10 CFR Part 30 amendment (62 FR 63634) that became effective January 2, 1997;
- ! "Radiological Criteria for License Termination," 10 CFR Parts 20, 30, 40, and 70 amendments (62 FR 39057) that became effective August 20, 1997; currently done by license conditions;

- ! "Notification of Incidents," 10 CFR Parts 20, 30, 31, 34, 39, 40, and 70 amendments (56 FR 64980) that became effective on October 15, 1991;
- ! "Quality Management Program and Misadministrations," 10 CFR Part 35 amendment (56 FR 34104) that became effective on January 27, 1992; submitted but not considered overdue as a result of NRC's decision to delay Agreement State compatibility implementation until the new Part 35 rule is implemented;
- ! "Clarification of Decommissioning Funding Requirements," 10 CFR Parts 30, 40, and 70 amendments (60 FR 38235) that became effective on November 24, 1995;
- ! "Low-Level Waste Shipment Manifest Information and Reporting," 10 CFR Parts 20 and 61 amendments (60 FR 15649 and 25983) that became effective on March 1, 1995;
- ! "Licenses for Industrial Radiography and Radiation Safety - Requirements for Industrial Radiography Operations," 10 CFR Parts 30, 34, 71, and 150 amendments (62 FR 28947) that became effective June 27, 1997; currently imposed by license condition;
- ! "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;
- ! "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;
- ! "10 CFR Part 71: Compatibility with the International Atomic Energy Agency," 10 CFR Part 71 amendment (60 FR 50248) that became effective on April 1, 1996;
- ! "Medical Administration of Radiation and Radioactive Materials," 10 CFR Parts 20 and 35 amendments (60 FR 48623) that became effective on October 20, 1995;
- ! "Radiation Protection Requirements: Amended Definitions and Criteria," 10 CFR Parts 19 and 20 amendments (60 FR 36038) that became effective on August 14, 1995;
- ! "Performance Requirements for Radiography Equipment," 10 CFR Part 34 amendment (60 FR 28323) that became effective on June 30, 1995;
- ! "Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use," 10 CFR Parts 30, 32, and 35 amendments (59 FR 61767 and 65243, 60 FR 322 ) that became effective on January 1, 1995;
- ! "Timeliness in Decommissioning of Materials Facilities," 10 CFR Parts 30, 40, and 70 amendments (59 FR) that became effective on August 15, 1997; adopted by reference to 10 CFR 30.35 and 30.36.

The following regulation was implemented by reference or by license condition:

- ! “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.

The Section has not submitted the following rule. They do not have any licensees affected by the requirement.

- ! “Respiratory Protection and Controls to Restrict Internal Exposures,” 10 CFR Part amendment (64 FR 54543; 64 FR 55524) that became effective February 2, 1999.

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

- ! “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 63750) that became effective January 8, 2000;
- ! “Revision of the Skin Dose Limit,” 10 CFR Part 20 amendment (67 FR 16298) that became effective April 5, 2002;
- ! “Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material,” 10 CFR Parts 30, 31, and 32 amendments (65 FR 79162) that became effective February 16, 2001;
- ! “Medical Use of Byproduct Material,” 10 CFR 20, 32, and 35 amendments (67 FR 20249) that became effective October 24, 2002.

Although the State was seriously behind in rulemaking due to the reasons previously stated in this report, they made a massive effort to correct this problem once resources became available. At the time of the review, 25 draft regulations were under review by NRC. The Section committed to have these rules in place very soon, possibly by the end of December 2002. The team noted that the Section had provided for not having regulations in place by a combination of legally binding requirements, license conditions and enforcement bulletins. The team could not identify any health, safety or event response issues that would have identified a regulatory, or compatibility, gap as a result of rules not being promulgated in a timely manner. Also, the team does not question management’s decision to focus on health and safety issues, e.g., licensing, inspections and emergency response, in lieu of rulemaking until such time as resources became available to properly address the outstanding rules. In addition, the Section did address important rules by license condition or by adoption by reference during the interim. Management’s actions were effective in prioritizing the Section’s work to first address health and safety issues, e.g., licensing, inspections and event response, and then address outstanding rulemaking. Current procedures and staffing appear adequate to maintain the program’s elements and maintain a level of currency in rulemaking. The IMPEP criteria for this indicator would find the Section to be satisfactory with recommendation for improvement. The review team believes that this finding should be raised to satisfactory on

the basis of the Section's management addressing program deficiencies and completing actions to deal with the overdue situation.

In making its decision to raise the finding to satisfactory, the review team suggests that the MRB should take into consideration the Section Management's decisions to prioritize work to address health and safety concerns and to defer rulemaking activities until staff were available and trained. The Section addressed any health and safety rules by licensing actions or enforcement bulletins to affected licensees. Also, the following should be considered: the Section submitted all rules required for compatibility prior to the review; NRC's review has been completed and draft comments sent to the Section on October 7, 2002. Upon receipt of NRC's final comments on the Section's draft rules, the Section indicated that it will make the necessary changes to the draft rules within 7 to 10 days. The rules will be administratively reviewed by Public Health Systems (PHS) before being sent to the Department of Health Services (DHS). The rules will become effective upon signing by the DHS Director, or designee, and their filing with the Secretary of State. The Section expects the rules to be effective in December 2002.

Last, the MRB is also asked to consider the extensive amount of work the Section has put into rulemaking in an effort to bring all rules up to date.

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

#### 4.2 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 Oregon 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 Oregon. Accordingly, the review team did not review this indicator.

#### 5.0 SUMMARY

As noted in Sections 3 and 4 above, Oregon's performance was found to be satisfactory for all performance indicators. Accordingly, the review team recommended, and the MRB concurred, in finding the Oregon Agreement State program adequate to protect public health and safety and compatible with NRC's program. Based on the results of the current IMPEP review, the review team recommended, and the MRB concurred, that the next full review should be in approximately four years.

Below are the recommendations, as mentioned, earlier in the report, for evaluation and implementation, as appropriate, by the State and the NRC.

#### RECOMMENDATIONS FOR THE STATE:

1. The review team recommends that the Section complete development of the program management software and continue to maintain capability in this area which is vital to successful performance of the program. (Section 3.3)
2. The review team recommends that the Section discontinue the routine use of advanced authorizations pending development of a procedure and basis for issuing the authorizations. Once developed, the Section should have the practice of issuing advance authorization and the procedure reviewed by counsel and its Radiological Advisory Committee (RAC). The review should include the form and content of the authorizations, the legal basis for issuing notifications prior to issuance of a license, as well as a determination of the potential impact on health and safety. In addition, the review should determine the State's potential liability and the compatibility of the practice with established State and Federal regulations, including requirements imposed on distributors of devices containing radioactive material. (Section 3.4)
3. The review team recommends that Oregon report events requiring greater than 24-hour notification to the NRC on a monthly basis; ensure that all reports through August 2002 have been entered into NMED; correct missing data on all NMED reports submitted; update and closeout previously reported incidents; and resolve data transmittal problems. (Section 3.5)

#### RECOMMENDATION FOR THE NRC:

1. The MRB recommends that the NRC review, in coordination with the States, the issues of data sharing, closing and completing NMED reports, and process used to provide periodic feedback to States on the status of their submittals.

## LIST OF APPENDICES AND ATTACHMENTS

Appendix A	IMPEP Review Team Members
Appendix B	Oregon Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Attachment	November 14, 2002 Letter from Grant K. Higginson, M.D. (without enclosure) Oregon's Response to Draft IMPEP Report

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

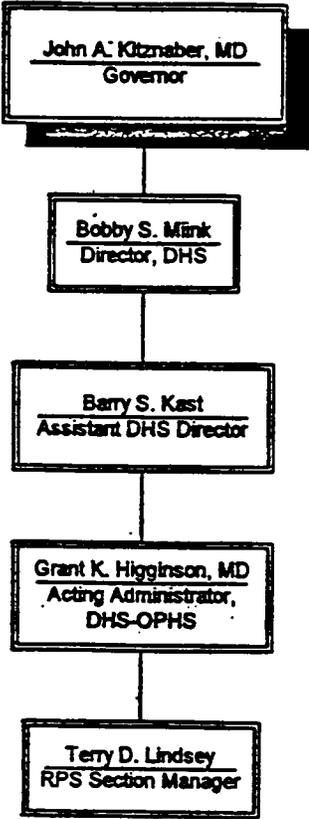
<b>Name</b>	<b>Area of Responsibility</b>
James Myers, STP	Team Leader Legislation and Program Elements Required for Compatibility Technical Staffing and Training
Linda McLean, RIV	Technical Staffing and Training Status of Material Inspection Program Technical Quality of Inspections
George Johns, IA	Technical Quality of Licensing Actions Technical Staffing and Training
Anthony Kirkwood, NMSS	Response to Incidents and Allegations

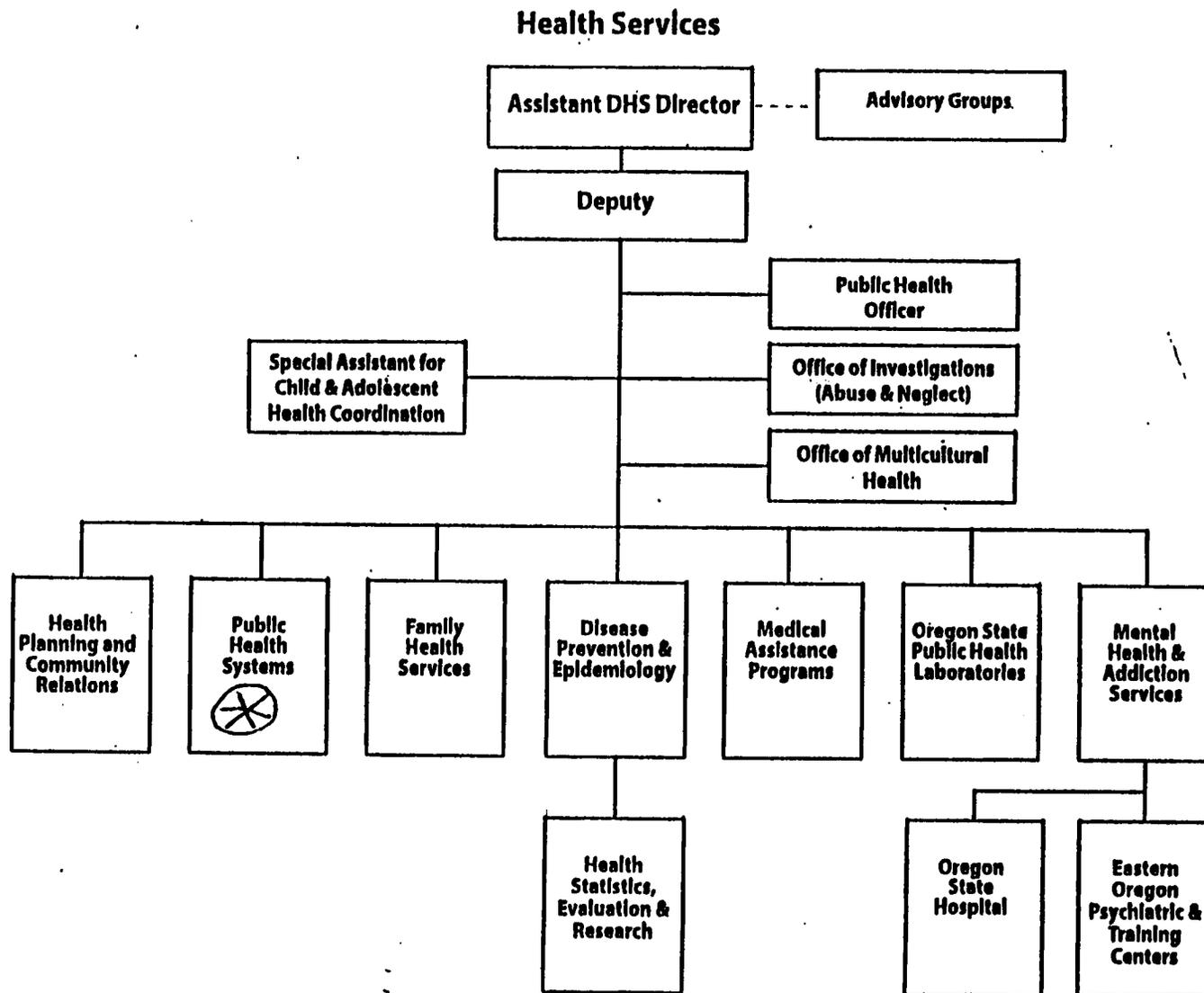
APPENDIX B

OREGON OFFICE OF RADIATION CONTROL

ORGANIZATION CHARTS  
ML022620740

Supervisory Organizational Chart  
from RPS Section Manager  
to the Governor of Oregon

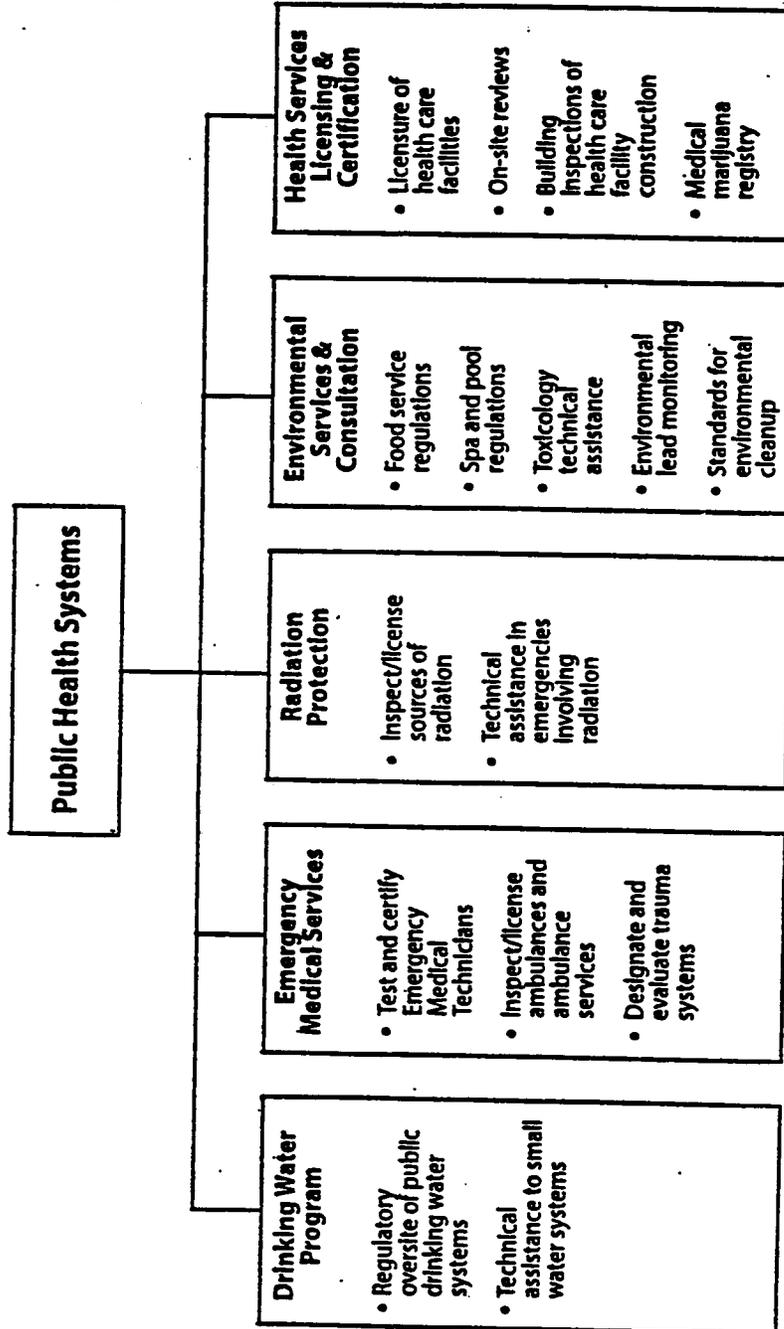




*For a more detailed organization chart, see Appendix 2 on pages 76-85.*

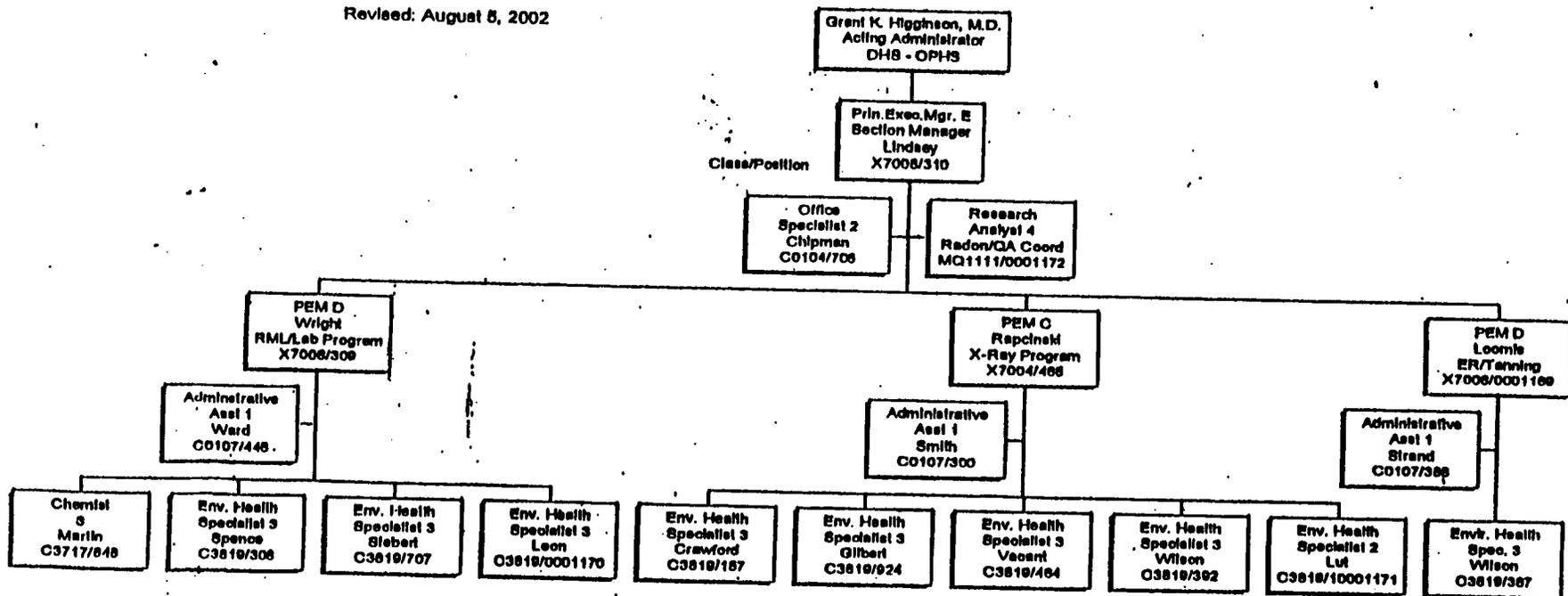
## Appendix 2: Detailed Organization Chart for Health Services

### Health Services



**Organizational Chart  
Radiation Protection Services  
Office of Public Health Systems**

Revised: August 5, 2002



## APPENDIX C

### INSPECTION CASEWORK REVIEWS

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

File No.: 1

Licensee: Mallinckrodt, Inc.

Location: Portland, OR

License Type: Radiopharmacy

Inspection Date: 5/14/02

License No.: ORE-90702

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: JS

File No.: 2

Licensee: Healthmont of Oregon, LLC  
(dba Eastmoreland Hospital)

Location: Portland, OR

License Type: Nuclear Medicine

Inspection Date: 5/13/02

License No.: ORE-90491

Inspection Type: Routine, Unannounced

Priority: 4

Inspector: KS

File No.: 3

Licensee: Stimson Lumber Company

Location: Forest Grove, OR

License Type: Fixed Gauge

Inspection Date: 5/16/02

License No.: ORE-90194

Inspection Type: Routine, Unannounced

Priority: 5

Inspector: DL

File No.: 4

Licensee: Oregon Health and Science University

Location: Portland, OR

License Type: Broadscope A - Medical

Inspection Dates: 4/3-4/02

License No.: ORE-90013

Inspection Type: Routine, Unannounced

Priority: 1

Inspectors: KS, DL, JS

Comments:

- a) Field notes did not document title of individuals at entrance or exit briefing.
- b) Field notes did not document inspector's "observations or demonstration of licensed activities."

File No.: 5

Licensee: Oncology Associates of Oregon  
(dba Willamette Valley Cancer Center)

Location: Eugene, OR

License Type: HDR- Brachytherapy

Inspection Date: 2/7/02

License No.: ORE-90862

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: KS

Comments:

- a) Inspection conducted overdue. Last inspection was conducted 7/14/99; inspection was due 7/00.
- b) "Tracking Sheet for Section Documents" was missing information, e.g., review signatures.
- c) Field notes did not document inspector's "observations or demonstration of licensed activities."

File No.: 6

Licensee: Samaritan Hospital and Medical Center

Location: Portland, OR

License Type: HDR

Inspection Date: 7/31/02

License No.: ORE-90790

Inspection Type: Routine, Unannounced

Priority: 1

Inspector: JS

Comment:

a) Inspection conducted overdue. Last inspection was conducted 1/22/01.

File No.: 7

Licensee: Oregon State University

Location: Corvallis, OR

License Type: Broadscope - Academic

Inspection Date: 1/18/01

License No.: ORE-90005

Inspection Type: Routine, Unannounced

Priority: 2

Inspector: KS

File No.: 8

Licensee: NorCal Testing, Inc.

(California Licensee) (CA4424-48)

Location: Field Site in Oregon

License Type: Industrial Radiography

Inspection Date: 10/11/01

License No.: ORE-96092

Inspection Type: Reciprocity, Unannounced

Priority: 1

Inspector: KS

File No.: 9

Licensee: J. L. Shepherd and Associates

(California Licensee) (CA1777-19)

Location: Portland, OR

License Type: Service

Inspection Date: 7/29/99

License No.: ORE-96003

Inspection Type: Reciprocity, Unannounced

Priority: 1

Inspector: TL

File No.: 10

Licensee: Providence Portland Medical Center

Location: Portland, OR

License Type: Gamma Knife

Inspection Date: 9/20/01

License No.: ORE-90946

Inspection Type: Initial, Unannounced

Priority: 1

Inspector: KS

Comments:

a) Inspection conducted seven months after license issuance during initial source loading.

b) Entrance and exit meeting was held only with the radiation safety officer.

File No.: 11

Licensee: Medical Imaging Consultants, Inc.

Location: Lebanon, OR

License Type: Mobile Nuclear Medicine

Inspection Date: 2/9/02

License No.: ORE-90580

Inspection Type: Routine, Unannounced

Priority: 2

Inspector: JS

File No.: 12

Licensee: Douglas M. Evans, DVM  
Location: Springfield, OR  
License Type: Veterinary Medicine  
Inspection Date: 3/21/02

License No.: ORE-90562  
Inspection Type: Routine, Unannounced  
Priority: 3  
Inspector: JS

File No.: 13

Licensee: Western Professional  
Location: Salem, OR  
License Type: Industrial Radiography  
Inspection Date: 1/14/00

License No.: ORE-90344  
Inspection Type: Routine, Unannounced  
Priority: 1  
Inspector: EW

Comment:

- a) Inspection conducted was overdue. Previous inspection was conducted on 3/24/98.
- b) As of 11/4/99 license is for storage only and should be a Priority 3. Priority on the license is incorrect.

File No.: 14

Licensee: Longview Inspection-Advanced Technology  
Location: Milwaukee, OR  
License Type: Industrial Radiography  
Inspection Date: 2/22/02

License No.: ORE-90621  
Inspection Type: Routine, Unannounced  
Priority: 1  
Inspector: KS

### INSPECTOR ACCOMPANIMENTS

In addition, the following inspection accompaniments were performed as part of the IMPEP review.

Accompaniment No.: 1

Licensee: Mallinckrodt, Inc.  
Location: Portland, OR  
License Type: Radiopharmacy  
Inspection Date: 5/14/02

License No.: ORE-90702  
Inspection Type: Routine, Unannounced  
Priority: 1  
Inspector: JS

Accompaniment No.: 2

Licensee: Healthmont of Oregon, LLC (dba Eastmoreland Hospital)  
Location: Portland, OR  
License Type: Nuclear Medicine  
Inspection Date: 5/13/02

License No.: ORE-90491  
Inspection Type: Routine, Unannounced  
Priority: 4  
Inspector: KS

Accompaniment No.: 3

Licensee: Stimson Lumber Company  
Location: Forest Grove, OR  
License Type: Fixed Gauge  
Inspection Date: 5/16/02

License No.: ORE-90194  
Inspection Type: Routine, Unannounced  
Priority: 5  
Inspector: DL

## APPENDIX D

### LICENSE CASEWORK REVIEWS

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

File No.: 1

Licensee: Pacific Heart Associates, PC

Location: Portland, Oregon

License Type: Imaging and Localization - Cardiology

Date Issued: 8/20/02

License No.: ORE-90988

Amendment No.: N/A

Type of Action: New

License Reviewer: SLM

File No.: 2

Licensee: Cardiac Consultants, PC

Location: Portland, Oregon

License Type: Medical – No QMP Required

Date Issued: 11/10/99

License No.: ORE-90908

Amendment No.: 1

Type of Action: Amendment

License Reviewer: SLM

File No.: 3

Licensee: Criss Materials

Location: Klamath Falls, Oregon

License Type: Portable Gauge – Moisture/Density

Date Issued: 6/10/02

License No.: ORE-90985

Amendment No.: N/A

Type of Action: New

License Reviewer: KHS

File No.: 4

Licensee: Lead Solutions

Location: Salem, Oregon

License Type: Portable Gauge - X-ray Defraction Device

Date Issued: 8/21/02

License No.: ORE-90981

Amendment No.: N/A

Type of Action: New

License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 5

Licensee: ATC Associates

Location: Tigard, Oregon

License Type: Portable Gauge - X-ray Defraction Device

Date Issued: 11/27/01

License No.: ORE-90976

Amendment No.: N/A

Type of Action: New

License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 6

Licensee: Oregon Cardiology, PC  
Location: Springfield, Oregon  
License Type: Imaging and Localization  
Date Issued: 10/10/01

License No.: ORE-90975  
Amendment No.: N/A  
Type of Action: New  
License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 7

Licensee: The Corvallis Clinic, PC  
Location: Corvallis, Oregon  
License Type: Medical Diagnostic – Private - No QMP Required  
Date Issued: 10/09/01

License No.: ORE-90974  
Amendment No.: 1  
Type of Action: New  
License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 8

Licensee: Landau Associated, Inc.  
Location: Lake Oswego, Oregon  
License Type: Portable Gauge – Moisture/Density  
Date Issued: 1/30/02

License No.: ORE-90973  
Amendment No.: N/A  
Type of Action: New  
License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 9

Licensee: Four Rivers Veterinary Clinic  
Location: Ontario, Oregon  
License Type: Veterinary  
Date Issued: 8/15/01

License No.: ORE-90972  
Amendment No.: N/A  
Type of Action: New  
License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 10

Licensee: Medical Imaging Consultants  
Location: Lebanon, Oregon  
License Type: Mobile Nuclear Medicine  
Date Issued: 11/16/99

License No.: ORE-90580  
Amendment No.: 19  
Type of Action: Amendment  
License Reviewer: TDL

File No.: 11

Licensee: Central Pharmacy Services, Inc.  
dba Medford Central Pharmacy  
Location: Medford, Oregon  
License Type: Nuclear Pharmacy  
Date Issued: 9/16/99

License No.: ORE-90914  
Amendment No.: N/A  
Type of Action: New  
License Reviewer: SLM/ELW

File No.: 12

Licensee: Central Pharmacy Services, Inc.  
dba Medford Central Pharmacy  
Location: Medford, Oregon  
License Type: Nuclear Pharmacy  
Date Issued: 1/08/00

License No.: ORE-90914  
Amendment No.: 1  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 13

Licensee: Central Pharmacy Services, Inc.  
dba Medford Central Pharmacy  
Location: Medford, Oregon  
License Type: Nuclear Pharmacy  
Date Issued: 1/08/00

License No.: ORE-90914  
Amendment No.: 7  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 14

Licensee: Legacy Good Samaritan Hospital and Medical Center  
Location: Portland, Oregon  
License Type: High Dose Rate Afterloader - Brachytherapy  
Date Issued: 2/07/02

License No.: ORE-90970  
Amendment No.: N/A  
Type of Action: Renewal  
License Reviewer: DW

File No.: 15

Licensee: Northwest Inspection, Inc.  
Location: Kennewick, Oregon  
License Type: Industrial Radiography  
Date Issued: 3/29/99

License No.: ORE-90889  
Amendment No.: N/A  
Type of Action: New  
License Reviewer: SLM

File No.: 16

Licensee: Northwest Inspection, Inc.  
Location: Kennewick, Oregon  
License Type: Industrial Radiography  
Date Issued: 4/07/01

License No.: ORE-90889  
Amendment No.: 2  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 17

Licensee: Pacific Technical Industries  
Location: Seattle, Washington  
License Type: Industrial Radiography  
Date Issued: 1/29/98

License No.: ORE-90779  
Amendment No.: 3  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 18

Licensee: Oregon Health and Science University  
Location: Portland, Oregon  
License Type: Academic Broadscope  
Date Issued: 11/13/00

License No.: ORE-90731  
Amendment No.: 61  
Type of Action: Amendment  
License Reviewer: SLM

Comments:

- a) An advance authorization was issued to possess and use radioactive material. Neither the procedural basis, nor the health and safety review, for the advance authorization were clearly documented in the file.
- b) A license, or license amendment, for the advance authorization activity was issued during subsequent licensing process.

File No.: 19

Licensee: Oregon Health and Science University  
Location: Portland, Oregon  
License Type: Academic Broadscope  
Date Issued: 2/13/01

License No.: ORE-90731  
Amendment No.: 62  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 20

Licensee: Reed College  
Location: Portland Oregon  
License Type: Academic Broadscope  
Date Issued: 8/17/00

License No.: ORE-90010  
Amendment No.: 46  
Type of Action: Renewal  
License Reviewer: SLM

File No.: 21

Licensee: Reed College  
Location: Portland Oregon  
License Type: Academic Broadscope  
Date Issued: 12/09/00

License No.: ORE-90010  
Amendment No.: 47  
Type of Action: Amendment  
License Reviewer: SLM

File No.: 22

Licensee: Douglas Medical Center, LLC  
dba DCMC  
License Type: Medical Diagnostic  
Date Issued: 4/27/00

License No.: ORE-90374  
Type of Action: Termination  
License Reviewer: SLM

File No.: 23

Licensee: Intel Corporation  
License Type: Fixed Gauge  
Date Issued: 10/09/01

License No.: ORE-90707  
Type of Action: Termination  
License Reviewer: SLM

File No.: 24

Licensee: Professional Services Industries, Inc.  
License Type: Portable Gauge – Moisture/Density  
Date Issued: 4/27/00

License No.: ORE-90745  
Type of Action: Termination  
License Reviewer: SLM

File No.: 25

Licensee: Advanced Geoservices Corporation  
License Type: Portable Gauge – Moisture/Density  
Date Issued: 9/18/00

License No.: ORE-90912  
Type of Action: Termination  
License Reviewer: SLM

## APPENDIX E

### INCIDENT CASEWORK REVIEWS

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

File No.: 1

Licensee: North Lincoln Hospital

License No.: ORE-90584

Site of Incident: Lincoln City, OR

Incident Log No.: 98-40 (NMED #981050)

Date of Incident: 9/2/98

Type of Incident: Release of Material

Investigation Date: 9/2/98

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported a spill of a radiopharmaceutical, Tc-99m, on a treadmill and on a patient's arm at the injection site. The Section's investigation showed that the treadmill was decontaminated to background and the patient's injection site was also decontaminated.

Comment:

- a) NMED entry needs corrective action entered and then closed.

File No.: 2

Licensee: North Lincoln Hospital

License No.: ORE-90584

Site of Incident: Lincoln City, OR

Incident Log No.: 99-040 (NMED #000118)

Date of Incident: 7/1/99

Type of Incident: Possible Overexposure

Investigation Date: 7/1/99

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported an abnormally high reading of 36 rem on the monitoring badge of a nuclear medicine technician. The technician was on vacation for one week and left his dosimeter in the hot lab. However, since the licensee uses primarily unit doses, it is unlikely that this could be the cause of the exposure. Licensee letter dated 8/18/99, noted that badge reading was erroneous and will be corrected to reflect the expected minimal dose for the period as determined by their investigation.

Comments:

- a) NMED event entry needs to be updated, with the contributing factors and corrective action, and closed.
- b) Also event occurred on 7/1/99, but not entered into NMED until 2/16/00.

File No.: 3

Licensee: Oregon Health Sciences University.

Site of Incident: Portland, OR

Date of Incident: 9/25/00

Investigation Date: 9/25/00

License No.: ORE-90731

Incident Log No.: 00-034 (NMED #010346)

Type of Incident: Lost or Stolen Material

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported the theft or loss of 220 uCi of P-32. The Principal Investigator contacted other labs and researchers to determine if they had used any, however no use was identified. The Radiation Safety Officer had surmised that only 30 uCi was sent and not the 250 uCi that was indicated. The Radiation Safety Officer sent a follow-up written report in which he indicated that occasionally researchers have reported receiving no activity in certain vials, no vials, or double the activity ordered in shipments. Procedures and training classes were revised to emphasize verification of shipment contents prior to use.

Comment:

- a) NMED event entry needs to be closed. Also event occurred on 9/25/00, but not entered into NMED until 4/12/01.

File No.: 4

Licensee: St. Vincent Hospital & Medical Ctr.

Site of Incident: Portland, OR

Date of Incident: 5/9/00

Investigation Date: 5/9/00

License No.: ORE-90104

Incident Log No.: 00-045 (NMED #010365)

Type of Incident: Lost or Stolen Material

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported a potential loss of radioactive material. The licensee ordered two capsules containing a total I-131 activity of 29.9 mCi (1.11 Gbq) from NEOREX, a radiopharmacy. The licensee identified one capsule from the shipment and believed that the other capsule may have been inadvertently discarded in the trash while still in its lead pig. The licensee notified the Metro Central Transfer Station. No gate monitor alarms were triggered at either of the two Central sites. The licensee believes it is possible that the pharmacy only sent one capsule. Apparently the capsule was not sent and therefore no further action required.

Comments:

- a) NMED event entry needs to be updated with corrective action and closed.
- b) Event occurred on 5/9/00, but not entered into NMED until 4/24/01.

File No.: 5

Licensee: Professional Service Industries, Inc.

License No.: ORE-90056

Site of Incident: Portland, OR

Incident Log No.: 00-064 (NMED #010226)

Date of Incident: 12/4/00

Type of Incident: Equipment Failure

Investigation Date: 12/4/00

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported an event where the source did not fully retract into the radiography camera and the locking mechanism may not have fully locked. The licensee tagged the camera out of service until it could be evaluated by the Radiation Safety Officer during the second week of January 2001. The camera was properly stored and shielded to prevent personnel exposure. No personnel exposures resulted from the event.

Comments:

- a) Follow up not noted in license file or incident file, or in subsequent 1/11/01 inspection, however, inspector considers the incident caused by dirt in the camera. NRC was notified, but event follow up needed.
- b) NMED event entry needs to be updated with contributing factors/corrective action and closed.
- c) Event occurred on 12/4/00, but not entered into NMED until 3/8/01. This exceeds the STP Procedure SA-300, 30-day reporting for 30-60 day events.

File No.: 6

Licensee: Nuclear Medicine Consulting Services, Inc.

License No.: ORE-90933

Site of Incident: Portland, OR

Incident Log No.: 01-0058 (NMED #011034)

Date of Incident: 5/4/01

Type of Incident: Lost or Stolen Material

Investigation Date: 5/4/01

Type of Investigation: On-Site

Summary of Incident and Final Disposition: The Oregon Metro Central Transfer Station reported that a bag of trash set off their radiation monitor alarm. The bag of trash was determined by the Section's inspector to have come from the Nuclear Medicine Consulting Services, Inc. (Portland Cardiovascular Institute) facility. The licensee sent a technician to pick up the waste for decay in storage. The inspector sent an Notice of Violation form to the licensee. A copy of the form was in the incident file but not the license file. The licensee sent a written response dated May 4, 2001, indicating the trash was from the clinic restroom and that the restroom would be monitored daily as a corrective action.

Comments:

- a) NMED event entry needs to be updated with contributing factors/corrective action.
- b) Event occurred on 5/4/01, but not entered into NMED until 11/19/01.

File No.: 7

Licensee: Professional Service Industries, Inc.

Site of Incident: Portland, OR

Date of Incident: 5/9/01

Investigation Date: 5/9/01

License No.: ORE-90056

Incident Log No.: 01-0066 (NMED #010435)

Type of Incident: Improper Use of Material

Type of Investigation: On-Site

Summary of Incident and Final Disposition: The Section reported that they had shut down a radiography operation in North Portland being conducted by the licensee. There were no operating survey instruments, the operators did not have alarming dosimeters, and warning signs were not posted. There was a 2 mR/hour line set up at six feet from the (2.96 T bq) 80 Ci Ir-192 source. NRC was notified of the incident (Event # 01-37982). An enforcement conference was held on 5/11/01, and an NOV issued.

Comments:

- a) The Section did not recognize this event as an Abnormal Occurrence (AO) as per STP Procedure SA-300, as a major deficiency in control of regulated materials having significant safety implications requiring immediate remedial action. The Section agreed to correct the NMED entry to reflect this incident as an AO.
- b) In addition, this incident (licensee reports and corrective action) was not cross referenced in the license file.
- c) NMED event entry needs to be updated with contributing factors/corrective action and closed.

File No.: 8

Licensee: Lamb-Weston

Site of Incident: Hermiston, OR

Date of Incident: 7/9/01

Investigation Date: 7/9/01, 7/27/01

License No.: ORE-90272

Incident Log No.: 01-0085 (NMED #011048)

Type of Incident: Equipment Failure

Type of Investigation: On-Site

Summary of Incident and Final Disposition: The licensee reported that the source rod of a fixed Ohmart gauge (model SHRM-4, serial # 1991) broke off, leaving the shutter in the open position. The gauge contained a Cs-137 source with an activity of approximately 24 mCi (0.89 G bq). The last leak test was performed in September 1998. The licensee isolated the area to avoid personnel exposures. An Ohmart representative arrived at the licensee's facility on 7/10/01. The gauge was removed from its fixed location, over a conveyor belt, and wrapped in lead shielding. It is being stored in a secure area until arrangements can be made for shipment.

Comments:

- a) During the IMPEP, the Section identified a similar previous incident that occurred on 10/31/95, that was not correlated with the 7/9/01, incident.
- b) A 24-hour notification to NRC is required. The incident file does not indicate an NRC notification was made nor is there a cross reference of the incident in the license file.
- c) NMED event entry needs to be updated with contributing factors/corrective action (stainless steel replacement) and closed.
- d) Event occurred on 7/9/01, but not entered into NMED until 11/20/01. This exceeds the STP Procedure SA-300, 30-day reporting for 30-60 day events.

File No.: 9

Licensee: KLB Construction

Site of Incident: Issaquah, WA

Date of Incident: 7/12/01

Investigation Date: 7/12/01 & 1/31/02

License No.: ORE-90865

Incident Log No.: 01-0086 (NMED #010681)

Type of Incident: Lost or Stolen Material

Type of Investigation: Phone

Summary of Incident and Final Disposition: The licensee reported the theft of a Troxler moisture/density gauge, model 3430, serial #28872, that contained an approximately 50 mCi (1.85 Gbq) Am-241 source. The gauge was stolen from a locked cargo container at a work site in Washington. The licensee had transported the gauge to the work site of a Washington licensee in order to complete a sales transaction of the gauge. The licensee's employee arrived at approximately 1730 PDT on 7/11/01. Since no one onsite was available to take possession of the gauge, the licensee employee locked it in a work site cargo container. The yellow transport box was reported to have been locked. When the licensee's employee came back at approximately 0700 PDT on 7/12/01, the locks had been broken and the gauge, along with several tools, had been stolen. The theft was reported to the City of Issaquah police. The Washington Radiation Control Program has been in contact with the Section to coordinate follow up. The Section followed up to Troxler with a call to add it to their list of stolen gauges.

Comment:

- a) Event occurred on 7/12/01, but not entered into NMED until 11/20/01. This exceeds the STP Procedure SA-300, 30-day reporting for 30-60 day events.

File No.: 10

Licensee: CPSI dba Medford Central Pharmacy

Site of Incident: Interstate 5, Milepost 147.5

Date of Incident: 3/8/02

Investigation Date: 3/8/02

License No.: ORE-90914

Incident Log No.: 02-001 (NMED # NR)

Type of Incident: Transportation

Type of Investigation: Phone

Summary of Incident and Final Disposition: A package containing Xe-133 from Mallinckrodt (Missouri) was being transported by courier to CPSI dba Medford Central Pharmacy (License No. 90914) when the courier was involved in a rollover accident. Douglas County 911 was given permission to transport the undamaged package, as per State Trooper, to Mercy Medical Center Hot Lab. CPSI picked up package at 7:00 a.m. that morning.

Comment:

- a) Event Date was 3/8/02, not in NMED as of 8/5/02. The Section indicated that a computer error had prevented incidents from being sent to INEEL from January 2002 till the problem was discovered in late July 2002.

File No.: 11

Licensee: Kaiser Sunnyside

Site of Incident: Clackamas, OR

Date of Incident: 5/17/02

Investigation Date: 5/17/02

License No.: ORE-90464

Incident Log No.: 02-0015 (NMED # NR)

Type of Incident: Lost or Stolen Material

Type of Investigation: Phone

Summary of Incident and Final Disposition: Prostate removed during surgery after I-125 seed implant. Pathologist who was examining prostate discovered seeds. Health Physicist consultant doing dose estimate for personnel who handled prostate. This event is still open and has not yet been cross referenced in the license file as of 8/27/02.

Comments:

- a) This event falls into the significant event reporting category (10 CFR 20.2201(a)(1)(i) requiring immediate notification since 1000 x Appendix C for I-125 is 1 mCi and 10 x Appendix C is 10 uCi. However, was unreported at the time of the review.
- b) Event occurred on 5/17/02, but not entered into NMED as of 8/5/02. This exceeds the STP Procedure SA-300, 30-day reporting for 30-60 day events if it is determined that this is a significant event. The Section indicated that a computer error had prevented incidents from being sent to NMED contractor from January 2002 till the problem was discovered in late July 2002.

ATTACHMENT

November 14, 2002 Letter from Grant K. Higginson, M.D. (without enclosure)  
Oregon's Response to Draft IMPEP Report

Complete letter, with enclosure, can be found at [ML023240526](#)



# Oregon

John A. Kitzhaber, M.D., Governor

November 14, 2002

Department of Human Services  
STP

02 NOV 15 PM 3: 43  
800 NE Oregon Street  
Portland, OR 97232-2162  
(503) 731-4030 Emergency  
(503) 731-4014, x 660  
Fax (503) 731-4081, x \_\_\_\_\_  
TTY-Nonvoice (503) 731-4037

Josephine Piccone, Deputy Director  
Office of State and Tribal Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

**Subject: Response to your Letter dated October 16, 2002 (Concerning the Oregon Agreement State Program IMPEP Review Conducted August 26-30, 2002)**

Dr. Piccone,

As an Agreement State, the State of Oregon has a responsibility to license and monitor the receipt, use and disposal of radioactive materials to protect the health and welfare of its citizens. To accomplish this task, legislation was passed giving Oregon Health Services statutory authority to develop rules and procedures to license and monitor radioactive materials. Radiation Protection Services is the Section charged with implementing the radioactive materials program. We look forward to, and appreciate, reviews of the licensing and inspection program.

As detailed in your report, the Integrated Materials Performance Evaluation Program (IMPEP) team provided a thorough examination of our program for the period of August, 1998 through August, 2002.

While the report reflects the current status of the program, it does not address the opportunity to exchange ideas on how to fine tune various aspects of the program. Oregon is grateful for the professional approach the team took in providing these insights. In the report there were two issues we would like to address. The team expressed a concern about Advanced Authorizations (also called Verbal Authorizations) and incident reporting.

For the first issue, Advanced Authorizations are typically used to allow licensees to order and receive radioactive materials prior to a license or license amendment being issued. This is primarily to assist licensees because of the lag time between ordering materials and actual receipt. Other types of Advanced Authorizations include new authorized users and temporary change in storage location. In the past this process has been informal and performed by either the licensing or inspection staff as required.

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ML023240526

Has 1501 (04/02)

Letter to Dr. Piccone, NRC HQ

November 14, 2002

Page two

Based upon the IMPEP Team's recommendations, a procedure has now been developed to formalize this process and include the types of safety considerations found in our normal licensing process. Key points in the revised process are that Advanced Authorizations will require management review and sign-off, they will expire in 30 days (this will reduce the length of time to issue the license or license amendment) and appropriate health and safety restrictions will be included in the authorization.

The second issue deals with incident reporting. The IMPEP team expressed concern about two incidents that may not have been reported timely nor were they properly categorized. Our review of the incident involving I-125 seeds indicates that it should not have been reported as "lost radioactive material".

One incident involved a prostate cancer patient who had been implanted with approximately 130 seeds. A few weeks later, his bladder was being operated on and the surgeon noticed the prostate was significantly abnormal so he removed the prostate. It was sent to pathology to determine if it was cancerous. The pathologist noticed the I-125 seeds when he tried to cross section the tissue for examination. He removed all the seeds he could find. There were just over 100 seeds. It is not unusual for seeds to be discharged by the patient while urinating. Since this is to be expected, we did not consider them "lost" in the usual sense.

The other incident was evaluated by the IMPEP team to be an AO type incident. Upon review of the criteria, they concluded that it was caused by a procedure failure. This incident involved a radiography crew performing field radiography. When the inspector arrived at the site, the crew did not have a working survey instrument or proper dosimetry and their 2 mr/hr line was only on one side and less than 6 feet away from the valve being radiographed. There were also several other items of non-compliance. At the time of this incident, we did not feel this was a procedure failure, but rather gross negligence on the part of the radiography crew and reported this as an incident rather than a 24 hour notification.

In both cases, we have reviewed the reporting requirements and agree that they should have been reported to the NRC in a more timely manner. We will make every attempt to properly evaluate incidents and report them to the NRC as required in SA-300. During the first quarter of calendar year 2003, we will also review all NMED reporting requirements against our current system of data recording and transfer to INEEL and make all necessary changes to provide fully compatible data for national materials event

reporting for the benefit of all concerned.

Letter to Dr. Piccone, NRC HQ

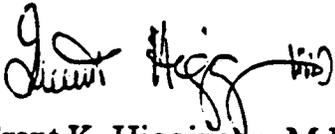
November 14, 2002

Page three

We have also enclosed our comments concerning your review of our draft rules. We anticipate having them submitted to the DHS-Health Services Administrator by November 22, 2002 and they should be to the Secretary of State's Office no later than the second week of December.

We appreciate the IMPEP team's thoroughness in conducting this valuable program review. We gained significant insight about our program and have implemented many of their useful suggestions. Should you have any questions concerning this correspondence, please contact Terry Lindsey at 503/731-4014 x660 or Ed Wright at 503/731-4014 x679.

Sincerely,

A handwritten signature in black ink, appearing to read "Grant K. Higginson, M.D.", with a stylized flourish at the end.

Grant K. Higginson, M.D.  
Acting Administrator  
Department of Human Services  
Office of Health Services

Enclosure

Copy to: Terry D. Lindsey, RPS Section Manager

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

QUESTIONNAIRE

**Oregon Radiation Protection Services**  
**Reporting Period: August 1, 1998 to August 31, 2002**

**A. COMMON PERFORMANCE INDICATORS**

**I. Status of Materials Inspection Program**

1. Please prepare a table identifying the licenses with inspections that are overdue by more than 25% of the scheduled frequency set out in NRC Inspection Manual Chapter 2800. The list should include initial inspections that are overdue.

<u>Licensee Name</u>	<u>Insp. Frequency (Years)</u>	<u>Due Date</u>	<u>Months O/D</u>
NONE			

2. Do you currently have an action plan for completing overdue inspections? If so, please describe the plan or provide a written copy with your response to this questionnaire.

**There are three reports from our data base that are reviewed monthly by RML Inspectors and the RML Manager. The reports identify New License Inspections by Overdue Date, Inspections by Overdue Date and Inspections by Inspection Due Date. Each inspector is required to provide a monthly schedule of planned inspections. The schedules are reviewed by the RML Manager. Emphasis is placed on priority, licensee performance, travel safety and other considerations such as training or special projects. (RML Reports 00, 01 and 02 will be available during the IMPEP Review)**

---

<sup>1</sup> Estimated burden per response to comply with this voluntary collection request: 53 hours. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0183), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

3. Please identify individual licensees or groups of licensees the State/Region is inspecting more or less frequently than called for in NRC Inspection Manual Chapter 2800 and state the reason for the change.

**See Attachment 1**

4. Please complete the following table for licensees granted reciprocity during the reporting period.

Priority	Number of Licensees Granted Reciprocity Permits Each Year	Number of Licensees Inspected Each Year
Service Licensees performing teletherapy and irradiator source installations or changes	YR1998 2 YR1999 3 YR2000 2 YR2001 2 YR2002 2	YR1998 0 YR1999 3 YR2000 0 YR2001 1 YR2002 0
1	YR1998 0 YR1999 2 YR2000 3 YR2001 3 YR2002 2	YR1998 0 YR1999 2 YR2000 3 YR2001 2 YR2002 2
2	YR1998 0 YR1999 0 YR2000 1 YR2001 1 YR2002 0	YR1998 0 YR1999 0 YR2000 1 YR2001 1 YR2002 0
3	YR1998 2 YR1999 4 YR2000 9 YR2001 13 YR2002 10	YR1998 2 YR1999 4 YR2000 5 YR2001 7 YR2002 4
4	YR1998 4 YR1999 4 YR2000 12 YR2001 11 YR2002 13	YR1998 4 YR1999 4 YR2000 10 YR2001 8 YR2002 5

5. For NRC Regions, did you establish numerical goals for the number of inspections to be performed during this review period? If so, please describe your goals, the number of inspections actually performed, and the reasons for

any differences between the goals and the actual number of inspections performed. N/A

II. Technical Quality of Inspections

6. What, if any, changes were made to your written inspection procedures during the reporting period?

**Inspection Forms reviews and improvements by RML Inspection Staff have been done on a informal basis in the past. Both the inspection and licensing programs are being revised with procedures, check lists and attachments following NRC guides and procedures.**

7. Prepare a table showing the number and types of supervisory accompaniments made during the review period. Include:

<u>Inspector</u>	<u>Supervisor</u>	<u>License Cat.</u>	<u>Date</u>
------------------	-------------------	---------------------	-------------

**All inspection staff have been accompanied for all types of inspections that they currently conduct. (See Attachment 2).**

8. Describe internal procedures for conducting supervisory accompaniments of inspectors in the field.

**All new inspectors are accompanied by Supervisory staff and experienced lead inspectors during the initial several months of their on the job training. Following this initial supervisory oversight, accompaniments are done for new types of licensees until each inspector is considered fully qualified to inspect all type of licensees. This process normally takes place over a 2-3 year period, depending upon the previous training and experience of each new inspector.**

9. Describe or provide an update on your instrumentation and methods of calibration. Are all instruments properly calibrated at the present time? Were there sufficient calibrated instruments available through the review period?

**Currently one-fourth of our instruments are calibrated each quarter. All instruments are currently calibrated. Although there were periods where some instruments were not in current calibration, sufficient numbers of all instrument types were always available for required surveys. This is due in part to the total quantity of 56 available instruments. We now have a formal process in place with printouts of all instruments that are reviewed and taken care of at least every quarter. A majority of our survey Instruments are sent to OSU for calibration under an agreement to calibrate instruments. (See Attachment 3)**

III. Technical Staffing and Training

10. Please provide a staffing plan, or complete a listing using the suggested format below, of the professional (technical) person-years of effort applied to the agreement or radioactive material program by individual. Include the name, position, and, for Agreement States, the fraction of time spent in the following areas: administration, materials licensing & compliance, emergency response, LLW, U-mills, other. If these regulatory responsibilities are divided between offices, the table should be consolidated to include all personnel contributing to the radioactive materials program. Include all vacancies and identify all senior personnel assigned to monitor work of junior personnel. If consultants were used to carry out the program's radioactive materials responsibilities, include their efforts. The table heading should be:

<u>Name</u>	<u>Position</u>	<u>Area of Effort</u>	<u>FTE%</u>
Terry D. Lindsey	Manager RPS	Program Management	60%
Edwin L. Wright	Manager RML	Program Management	100%
Danny D. Loomis	Emergency Mgr	Radiological Emergencies	10%
Susan Chipman	Office Specialist	Clerical Support	60%
Daryl Leon	Health Physicist	Inspections, Peer reviews	100%
Sylvia Martin	Health Physicist	Primary Licensing Review	100%
Kevin Siebert	Health Physicist	Inspections, Peer reviews	100%
Justin Spence	Health Physicist	Inspections, Peer reviews	100%
Debbie Ward	Admin. Asst.	Lic & Inspection Admin	100%

11. Please provide a listing of all new professional personnel hired since the last review, indicate the degree(s) they received, if applicable, and additional training and years of experience in health physics, or other disciplines, if appropriate.

Edwin L. Wright	BS Chemistry	CHP, over 25 years Health Physics, 9 years State Programs
Tobin Mott	BS Ind Hygiene	Left program
Kevin Siebert	BS Health Physics	10 yrs at Broadscope A
Justin Spence	BS Geology	4 yrs Kansas State Program
Daryl Leon	BS Health Physics	4 yrs at OSU Reactor as HP

12. Please list all professional staff who have not yet met the qualification requirements of license reviewer/materials inspection staff (for NRC, Inspection Manual Chapters 1246; for Agreement States, please describe your qualifications requirements for materials license reviewers and inspectors). For each, list the courses or equivalent training/experience they need to attend and a tentative schedule for completion of these requirements.

(See Attachment 4)



V. Responses to Incidents and Allegations

19. For Agreement States, please provide a list of the reportable incidents (i.e., medical misadministration, overexposures, lost and abandoned sources, incidents requiring 24 hour or less notification, etc. See Handbook on Nuclear Material Event Reporting in Agreement States for additional guidance.) that occurred during the review period. Information included in previous submittals to NRC need not be repeated (i.e., those submitted under OMB clearance number 3150-0178, Nuclear Material Events Database). The list should be in the following format:

Licensee Name    License #    Date of Incident/Report    Type of Incident

**All reportable incidents have been reported to NRC through NMED at INEEL**

20. During this review period, did any incidents occur that involved equipment or source failure or approved operating procedures that were deficient? If so, how and when were other State/NRC licensees who might be affected notified? For States, was timely notification made to NRC? For Regions, was an appropriate and timely PN generated?

**Fixed Gauge shutter failure (Lamb Weston) due to improper selection of source holder for freezer/wet environment (replaced with stainless steel shutter to prevent rusting).**

**One faulty locking mechanism on a Gamma Radiography Exposure device possibly due to sand in mechanism from overexposure event and use of sand for shielding of gamma camera during source recovery.**

**Two lost static elimination devices due to improper control procedures.**

**Two lost unsealed sources (P-32 - 90731/ I-131 - 29.9 mCi - 90104).**

**Three Stolen moisture/density gauges with one recovered to date - Loss may be due to limited security procedures at offsite storage locations. All were immediately reported to NRC, adjacent states and notifications were sent to all Oregon portable gauge licensees, as well as Manufacturers.**

21. For Agreement States, for incidents involving failure of equipment or sources, was information on the incident provided to the agency responsible for evaluation of the device for an assessment of possible generic design deficiency? Please provide details for each case.

**N/A - Fixed gauge shutter problem was due to improper gauge selection.**

22. Identify any changes to your procedures for handling allegations that occurred during the period of this review.

**We are currently reviewing both our Enforcement and Allegation procedures using the NRC Enforcement Manual for Enforcement guidance and NRC MD 8.8 as guidance for updating our procedures on handling of allegations in these areas of concern.**

VI. General

23. Please prepare a summary of the status of the State's or Region's actions taken in response to the comments and recommendations following the last review. Describe the results of any program audits completed during the review period.

**Rule revisions were not completed within the 3 year time frame allowed for Agreement States, however, all Public Health and Safety concerns were taken care of through Enforcement Bulletins and/or licensing actions.**

**Overdue new licensees are now being inspected on a routine basis within the 6 month period of time required.**

**Both of the above items were affected by staffing levels during the past 4 years but have now been fully addressed and will be kept in compliance through updated procedures and management commitments.**

24. For NRC Regions, briefly describe any recent efforts, or future plans, on your part to: (1) improve the safety performance of licensees operating below acceptable levels for ensuring public health and protection, (2) increase the public confidence in your program, (3) increase your effectiveness, and efficiency, or (4) reduce any unnecessary regulatory burden for your stakeholders. *N/A*
25. Provide a brief description of your program's strengths and weaknesses. These strengths and weaknesses should be supported by examples of successes, problems or difficulties which occurred during this review period.

**Strengths:**

- 1. Licensing actions are handled in an efficient and timely manner with comprehensive reviews completed for each licensing action.**
- 2. Technical personnel are well credentialed and professional in their work with licensees to handle licensing and inspection concerns.**
- 3. RML Program revenues are adequate to support the materials program.**
- 4. Licensing support person is well trained and knowledgeable.**

**5. Salaries levels have been significantly improved to help to retain personnel.**

**6. The entire RPS Section supports all phases of the Radioactive Materials Licensing, inspections and Emergency Response to incidents with use of a common-sense approach to problem solving.**

**7. RML staff training has strong management support and budgeting to maintain staff training on an ongoing basis.**

**Weaknesses:**

**1. Limited legal support with no in-depth knowledge base for Environmental health legal expertise developed (very costly and limited to special cases).**

**2. Dependent upon NRC fee waiver for several CORE training courses to help control program costs and complete required staff training.**

**3. Staff retention and turnover has had a large impact on ability to complete all licensing and inspections within the time allowed on a routine basis for the past 10+ years.**

**4. Current fee levels do not adequately provide funding for professional staff development, legal review of critical documents, assessment of costs for staff time for special licensing or environmental surveys and required technical expertise for complex licensing actions (e.g. medical physicist).**

**5. Currently, rulemaking efforts remove technical staff from essential licensing and inspection tasks.**

**6. Formal policy/procedure revisions have not been updated in a timely manner because these tasks remove technical staff from essential licensing and inspection tasks.**

**B. NON-COMMON PERFORMANCE INDICATORS**

**I. Legislation and Program Elements Required for Compatibility**

**26. Please list all currently effective legislation that affects the radiation control program (RCP).**

**ORS 431 (Tanning Program) ORS 453 (Radioactive Materials/X-ray/ER/Lab)  
ORS 345 (Waste Disposal - Oregon Office of Energy)**

**27. Are your regulations subject to a "Sunset" or equivalent law? If so, explain and include the next expiration date for your regulations. No.**

28. Please complete the enclosed table based on NRC chronology of amendments. Identify those that have not been adopted by the State as detailed in the current RATS form, explain why they were not adopted, and discuss any actions being taken to adopt them. Identify the regulations that the State has adopted through legally binding requirements other than regulations.

**See Attachment 5 (State Regulation Status report)**

29. If you have not adopted all amendments within three years from the date of NRC rule promulgation, briefly describe your State's procedures for amending regulations in order to maintain compatibility with the NRC, showing the normal length of time anticipated to complete each step.

**Rule adoption has exceeded the three year requirement since the last IMPEP review. At the time of the last review, staffing was not adequate for the workload. Because of the amount of time required to review, draft, revise, hold public hearings and process the proposed rules for adoption, it was given a lower priority than licensing and overdue inspections. Since December of 2000, Radiation Protection Services has increased its inspection staff to three inspectors. During the same period, three RPS managers have retired. This has put a severe administrative oversight and experienced staffing strain on the Radioactive Materials Program. Currently, we are at full staffing and training of new staff is being accomplished in a well planned manner.**

**The new Policy for Radiation Protection Services is to have at least an annual review of the rules. The following schedule will be followed:**

- A. During January each year, we will review NRC rule changes, comments from staff and others.**
- B. Draft changes will be made as necessary.**
- C. Proposed changes will be reviewed by the Radiation Advisory Committee, as required by State Statute.**
- D. Final draft will be forwarded for Health Services Administration review.**
- E. Public comment period (usually 30 to 45 days) will be opened and proposed changes will be distributed to all licensees and interested parties. [This would include the NRC for compatibility review.]**
- F. Public Hearing will be conducted.**
- G. Final proposed rules will be prepared.**

H. Final proposed rules will be reviewed and approved by Department of Human Services management.

I. Final draft of approved rules will be submitted to the Secretary of State. {Will become official when date stamped by the Secretary of State.}

II. Sealed Source and Device Program

30. Prepare a table listing new and revised SS&D registrations of sealed sources and devices issued during the review period.

**None. SS&D review has been deferred to the NRC.**

31. What guides, standards and procedures are used to evaluate registry applications?

**N/A**

32. Please include information on the following questions in Section A, as they apply to the Sealed Source and Device Program: **N/A**

Technical Staffing and Training - A.III.10-14

Technical Quality of Licensing Actions - A.IV.15-18

Responses to Incidents and Allegations - A.V.19-22

III. Low-Level Waste Program

33. Please include information on the following questions in Section A, as they apply to the Low-level Waste Program: **N/A**

Status of Materials Inspection Program - A.I.1-3, A.I.5

Technical Quality of Inspections - A.II.6-9

Technical Staffing and Training - A.III.10-14

Technical Quality of Licensing Actions - A.IV.15-18

Responses to Incidents and Allegations - A.V.19-22

IV. Uranium Mill Program

34. Please include information on the following questions in Section A, as they apply to the Uranium Mill Program: **N/A**

Status of Materials Inspection Program - A.I.1-3, A.I.5

Technical Quality of Inspections - A.II.6-9

Technical Staffing and Training - A.III.10-14

Technical Quality of Licensing Actions - A.IV.15-18

Responses to Incidents and Allegations - A.V.19-22

TABLE FOR QUESTION 28. See Attachment 5 (State Regulation Status report)

10 CFR RULE	DATE DUE	DATE ADOPTED OR EFFECTIVE	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Any amendment due prior to 1993. Identify each regulation (refer to the Chronology of Amendments)				
Emergency Planning; Parts 30, 40, 70	4/7/93			
Standards for Protection Against Radiation; Part 20	1/1/94			
Safety Requirements for Radiographic Equipment; Part 34	1/10/94			
Notification of Incidents; Parts 20, 30, 31, 34, 39, 40, 70	10/15/94			
Quality Management Program and Misadministrations; Part 35	1/27/95			
Licensing and Radiation Safety Requirements for Irradiators; Part 36	7/1/96			
Definition of Land Disposal and Waste Site QA Program; Part 61	7/22/96			
Decommissioning Recordkeeping: Documentation Additions; Parts 30, 40, 70	10/25/96			
Uranium Mill Tailings: Conforming to EPA Standards; Part 40	7/1/97			
Timeliness in Decommissioning Parts 30, 40, 70	8/15/97			
Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use; Parts 30, 32, 35	1/1/98			
Frequency of Medical Examinations for Use of Respiratory Protection Equipment	3/13/98			

10 CFR RULE	DATE DUE	DATE ADOPTED OR EFFECTIVE	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Low-Level Waste Shipment Manifest Information and Reporting	3/1/98			
Performance Requirements for Radiography Equipment	6/30/98			
Radiation Protection Requirements: Amended Definitions and Criteria	8/14/98			
Medical Administration of Radiation and Radioactive Materials.	10/20/98			
Clarification of Decommissioning Funding Requirements	11/24/98			
10 CFR Part 71: Compatibility with the International Atomic Energy Agency	4/1/99			
Termination or Transfer of Licensed Activities: Recordkeeping Requirements.	6/16/99			
Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act	1/9/2000			
Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State	2/27/2000			
Criteria for the Release of Individuals Administered Radioactive Material	5/29/2000			
Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations; Final Rule	6/27/2000			
Radiological Criteria for License Termination	8/20/2000			
Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea	1/2/2001			
Deliberate Misconduct by Unlicensed Persons	2/12/2001			

10 CFR RULE	DATE DUE	DATE ADOPTED OR EFFECTIVE	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations; Clarifying Amendments and Corrections	7/9/2001			
Minor Corrections, Clarifying Changes, and a Minor Policy Change	10/26/2001			
Transfer for Disposal and Manifest; Minor Technical Conforming Amendments	11/20/2001			
Radiological Criteria for License Termination of Uranium Recovery Facilities	6/11/2002			
Respiratory Protection and Controls to Restrict Internal Exposures	2/2/2003			
Energy Compensation Sources for Well Logging and Other Regulatory Clarifications	5/17/03			
New Dosimetry Technology	1/8/04			
Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material	2/16/04			
Medical Use of Byproduct Material	4/24/05			

# MATERIALS REQUESTED TO BE AVAILABLE FOR THE ONSITE PORTION OF AN IMPEP REVIEW

## ORGANIZATION CHARTS

Clean, sized 8½ X 11" including names and positions

- One showing positions from Governor down to Radiation Control Program Director (RCPD)
- One showing positions of current radiation control program with RCPD as Head
- Equivalent charts for LLRW and mills programs, if applicable

## LICENSE LISTS

- Printouts of current licenses, showing total, as follows:

Name	License #	Location	License Type	Priority	Last Inspection	Due Date
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Sort alphabetically

Also, sort by due date and by priority (if possible)

## THE FOLLOWING LISTS

- List of open license cases, with date of original request, and dates of follow up actions
- List of licenses terminated during review period.
- Copy of current log or other document used to track licensing actions
- Copy of current log or other document used to track inspections
- List of Inspection frequency by license type
- List all incidents occurring during the review period. Show whether incident is open or closed and whether it was reported to the NRC
- List of all allegations occurring during the review period. Show whether the allegation is open or closed and whether it was referred by NRC
- List of all wrongdoings occurring during the review period. Show whether the allegation is open or closed

## THE FOLLOWING DOCUMENTS

- All State regulations
- Statutes affecting the regulatory authority of the state program
- Standard license conditions
- Technical procedures for licensing, model licenses, review guides
- SS&D review procedures
- Instrument calibration records
- Inspection procedures and guides
- Inspection report forms
- Records of results of supervisory accompaniments of inspectors
- Emergency plan and communications list
- Procedures for investigating allegations
- Procedures for investigating incidents
- Enforcement procedures, including procedures for escalated enforcement, severity levels, civil penalties (as applicable)
- Copies of job descriptions
- Copies of audits or self audits conducted

## ATTACHMENT 1

### Inspection Priority by Program Codes

Program Code	Category Title	NRC Priority	Oregon Priority
02121	Medical Institution - no QMP required	5	4
02201	Medical Private Practice - no QMP required	5	4
02400	Veterinary Nonhuman	5	3
03121	Measuring Systems, Portable Gauges (includes Industrial Lixiscope)	5	4
03122	Measuring Systems Analytical Instruments	7	5
03123	Measuring Systems Gas Chromatographs	7	5
03124	Measuring Systems Other	7	5
03810	Byproduct Material Standby - No Operations	2	3
11210	Source Material- Shielding	7	6
11800	Source Material Possession-Only - Permanent Shutdown	2	3
22130	Power Sources with Byproduct and/or SNM	7	5
22160	Pacemaker Byproduct, and/or SNM - Medical Institution	7	5
22161	Pacemaker Byproduct, and/or SNM - Individual	7	5
23300	SNM Possession-Only (Non-Fuel)-Permanent Shutdown	2	3

**ATTACHMENT 2**

<b>Inspector</b>	<b>Supervisor</b>	<b>License Cat.</b>	<b>Date</b>
Terry D. Lindsey	Martha Dibblee	All types	1995 - 1998
Tobin Mott	Edwin Wright	Medical (plus training)	8/16/1999 to 8/1/2000
Kevin Siebert	Edwin L. Wright	Medical (plus training)	1/2/2001 to 6/1/2001
Justin Spence	Edwin L. Wright	Medical (plus training)	9/1/2001 to 12/31/2001
Daryl Leon	Edwin L. Wright	Medical (plus training)	9/1/2001 to 12/31/2001

# INSTRUMENT

## INFORMATION

MFG	TYPE	MODEL	S/N	CAL DATE	CAL DUE	USER	LOCATION
DOS. CORP	GM	252B	1910	3/15/02	3/15/03	ELW	Rm 260, Lab shelf
DOS. CORP	GM	3034-2	123285	1/17/01	1/17/02	(n/a)	Rm 260, cabinet #2
DOS. CORP	GM	3500	941091	6/3/02	6/3/03	(n/a)	Rm 260, cabinet #2
DOS. CORP	GM	3500	931091	8/7/02	8/7/03	(n/a)	Rm 260, cabinet #2
EBERLINE	I/C	RO-2A	730	10/31/01	10/31/02	(n/a)	Rm 360, cabinet #2
EBERLINE	I/C	PIC-6A	2156	10/31/01	10/31/02	(n/a)	Rm 360, cabinet #2
EBERLINE	I/C	PIC-6A	2187	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #4
EBERLINE	I/C	RO-2A	2868	6/3/02	6/3/03	(n/a)	Rm 360, cabinet #2
EBERLINE	GM	E-120	11695	10/15/01	10/15/02	(n/a)	Rm 360, cabinet #2
EBERLINE	I/C	PIC-6A	E2104	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #4
LUDLUM	CPM	12	1637	6/3/02	6/3/03	(n/a)	LAB (rm 260)
LUDLUM	CPM	12	1853	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #2
LUDLUM	CPM	12	1856	10/15/01	10/15/02	M. Deason	Public Health Lab
LUDLUM	GM	14A	1984	3/22/02	3/22/03	(n/a)	Rm 260, shelf
LUDLUM	CPM	12(uR)	3643	2/6/02	2/6/03	(n/a)	LAB (rm 260)
LUDLUM	GM	3	3852	6/3/02	6/3/03	(n/a)	Rm 360, cabinet #2
LUDLUM	CPM	12(uR)	8109	11/7/01	11/7/02	(n/a)	Rm 260, Lab shelf
LUDLUM	CPM	12	12890	8/2/02	8/2/03	Salem	SALEM H/M 1-2
LUDLUM	CPM	12	13282	8/2/02	8/2/03	Salem	SALEM H/M 2-2
LUDLUM	CPM	12	13285	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #2
LUDLUM	CPM	12	13292	3/22/02	3/22/03	(n/a)	Rm 260, shelf
LUDLUM	CPM	12	13319	11/1/01	11/1/02	(n/a)	Rm 360, cabinet #2
LUDLUM	CPM	12	13333	10/9/01	10/9/02	(n/a)	Rm 360, cabinet #4
LUDLUM	NaI(uR)	19	14507	6/3/02	6/3/03	(n/a)	Rm 260, Lab shelf
LUDLUM	NaI(uR)	19	14508	10/15/01	10/15/02	(n/a)	Rm 360, cabinet #4
LUDLUM	NaI(uR)	19	14511	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #4
LUDLUM	CPM	12	14809	8/6/02	8/6/03	(n/a)	Rm 360, cabinet #4
LUDLUM	CPM	12	14817	11/1/01	11/1/02	(n/a)	Rm 360, cabinet #2

LUDLUM	CPM	12	14824	7/27/01	7/27/02	Ranier, OR	TEMP LOAN TO RAINIER F.D.
LUDLUM	CPM	12	14843	11/1/01	11/1/02	(n/a)	Rm 360, spare ER kit
LUDLUM	GM	5	18239	6/3/02	6/3/03	(n/a)	Rm 360, cabinet #2
LUDLUM	CPM Anal	18	34280	3/22/02	3/22/03	(n/a)	ER Kit, rm 360
LUDLUM	I/C	9	34774	3/22/02	3/22/03	(n/a)	Rm 260, shelf
LUDLUM	GM	14C	37714	10/31/01	10/31/02	R. Koenig	Dept. of Environmental Quality
LUDLUM	CPM	12	46454	11/7/01	11/7/02	DDL	Rm 260, ER Kit #7 at desk
LUDLUM	CPM	12	46468	8/6/02	8/6/03	DL	Rm 260, ER Kit #3 at desk
LUDLUM	CPM	12	46851	8/6/02	8/6/03	PW	Rm 260, ER Kit #6 at desk
LUDLUM	CPM	12	46886	11/15/01	11/15/02	RR	Rm 260, ER Kit #5 at desk
LUDLUM	CPM	12	46890	8/6/02	8/6/03	KS	Rm 260, ER Kit #1 at desk
LUDLUM	CPM	12	47794	3/22/02	3/22/03	JS	Rm 260, ER Kit #2 at desk
LUDLUM	CPM	12	47803	11/1/01	11/1/02	TL	Rm 260, ER Kit #4 at desk
LUDLUM	CPM	12	13335	8/7/02	8/7/03	(n/a)	Rm 260, cabinet #2
LUDLUM	I/C	9	123331	11/7/01	11/7/02	(n/a)	Rm 260, Lab shelf
LUDLUM	Nal	2221	157029	3/22/02	3/22/03	(n/a)	Rm 260, shelf
LUDLUM	GM	2401-EC2	159813	3/22/02	3/22/03	DAL	Rm 260, desk
LUDLUM	GM	2401-EC	161612	6/3/02	6/3/03	KS	Rm 260, desk
LUDLUM	GM	2401-EC	161619	8/6/02	8/6/03	JS	Rm 260, desk
LUDLUM	GM	2401-P	162945	3/22/02	3/22/03	KS	Rm 260, desk
LUDLUM	GM	2401-P	162957	6/3/02	6/3/03	JS	Rm 260, desk
VICTOREEN	I/C	190	903	8/7/02	8/7/03	ELW	Rm 260, Kit #8 at Ed's desk
XETEX	GM	335B	45874	3/22/02	3/22/03	TL	Rm 260, desk
REUTER-	PIC	RSS-112	96I00056	9/12/00	9/12/02	(n/a)	Rm 260, cabinet #2
STOKES							

## **ATTACHMENT 4**

### **STAFF TRAINING**

#### **RPS Manager**

Terry D. Lindsey

#### **RML Manager**

Edwin L. Wright

BS Chemistry, University of the State of New York 1981  
CHP Certification 7/91

##### **NRC Courses**

- Inspection Procedures 7/90
- Radiation Protection Engineering 1/91
- Licensing Procedures 4/91
- Industrial Radiography 8/91
- Well Logging 11/91
- Transportation 3/92
- Medical Issues Workshop 7/92
- Root Cause 4/01

### **Licensing**

Sylvia Martin

BS Chemistry, Jackson State University 1971

##### **NRC Courses 12/1/95-11/30/96**

- Nuclear Medicine Procedures
- Licensing Procedures
- Inspection Procedures
- Equivalent for 5 week Health Physics

### **Inspectors**

Kevin H. Siebert

BS Health Physics, Thomas Edison State College 1998

##### **NRC Courses**

- Licensing Procedures 3/02
  - Industrial Radiography 4/02
- Scheduled
- Inspection Procedures 9/02

Justin Spence

BS Geology, University of Nebraska 1996

NRC Courses

- Industrial Radiography 4/99
- IS-301 6/99
- Inspection Procedures 9/99
- Licensing Procedures 6/00
- ICS First Responder 12/00
- Root Cause 4/01

Daryl Leon

BS Health Physics, Oregon State University 1996

NRC Courses

- Inspection Procedures 3/02
- Scheduled
- Licensing Procedures 9/02

FR No.	RATS ID	NRC Chronology Identification	10 CFR Part(s)	OAR Div(s)	State Due Date	Implementation Date
56 FR 23360 56 FR 6135 57 FR 38588 57 FR 57877 58 FR 67657 59 FR 41641 60 FR 20183 55 FR 843	1991-3	Standards for Protection Against Radiation	20	120	FINAL	04/26/95
56 FR 11504 56 FR 64980	1991-1 1991-2 1991-4	Safety Requirements for Radiographic Equipment ASNT Certification of Radiographers Notification of Incidents	34 34 20, 30, 31, 34, 39, 40, 70 35	105 105 120 116	FINAL PROPOSED FINAL FINAL	04/26/95 <b>FOR NRC REVIEW</b> 04/26/95 04/26/95
56 FR 34104 57 FR 45566	1992-1 1992-2	Quality Management Program and Misadministrations Eliminating the Recordkeeping Requirements for Departures from Manufacturer's Instructions	30, 35 36	N/A 121	Not Required PROPOSED	N/A <b>FOR NRC REVIEW</b>
58 FR 7715 58 FR 33886	1993-2 1993-3	Licensing and Radiation Safety Requirements for Irradiators Definition of Land Disposal and Waste Site QA Program	61 30, 40	N/A 102-200(6)	N/A Proposed NRC-N 5/6/94	N/A Rule references 10 CFR 30.35 and 30.36
58 FR 39628 58 FR 68726 59 FR 1618 59 FR 28220	1993-1 1994-1 1994-2	Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites] Self-Guarantee as an Additional Financial Mechanism Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards	30, 40 30, 40, 70 40	N/A N/A N/A	Not Required Not Required 07/01/97	N/A N/A No operating mills
59 FR 36026	1994-3	Timeliness in Decommissioning Material Facilities	30, 40, 70	102	08/15/97	By reference to 10 CFR 30.35 and 30.36 (04/26/95) <b>FOR NRC REVIEW</b>
59 FR 61767 59 FR 65243 60 FR 322 60 FR 7900	1995-1 1995-2	Preparation, Transfer for Commercial Distribution, and use of Byproduct Material for Medical Use Frequency of Medical Examinations for Use of Respiratory Protection Equipment	30, 32, 35 20	116 120	01/01/98 03/13/98	Do not have any licensees that require RP equip Will address in licensing if req.

60 FR 15649	1995-3	Low-Level Waste Shipment Manifest Information and Reporting	20, 61	120	03/01/98	By Reference 04/26/95
60 FR 25983	1995-4	Performance Requirements for Radiography Equipment	34	105	06/30/98	FOR NRC REVIEW
60 FR 28323	1995-5	Radiation Protection Requirements: Amended Definitions and Criteria	19, 20	100, 111, 120	08/14/98	FOR NRC REVIEW
60 FR 36038	1995-6	Clarification of Decommissioning Funding Requirements	30, 40, 70	102	11/24/98	By Reference 04/26/95
60 FR 38235	1995-7	Medical Administration of Radiation and Radioactive Material	20, 35	116, 120	10/28/98	FOR NRC REVIEW
60 FR 48623	1996-1	10 CFR Part 71: Compatibility with the International Atomic Energy Agency	71	118	04/01/99	FOR NRC REVIEW Licensees req to follow 49 CFR N/A
60 FR 50248	1996-2	One Time Extension of Certain Byproduct, Source and Special Nuclear Materials Licenses	30, 40, 70	N/A	None	
61 FR 1109	1996-3	Termination or Transfer of Licensed Activities: Record Keeping Requirements	20, 30, 40, 61, 70	102	06/17/99	By Reference 04/26/95
61 FR 24669	1997-1	Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act	20	120	01/09/00	Require licenses to meet EPA by reference and air sampling. Also use Comply FOR NRC REVIEW
61 FR 65120	1997-2	Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within the Agreement State	150	102	02/27/00	
62 FR 1662	1997-3	Criteria for the Release of Individuals Administered Radioactive Materials	20, 35	116, 120	05/29/00	FOR NRC REVIEW
62 FR 4120	1997-4	Fissile Material Shipments and Exemptions	71	N/A	Not Required	N/A
62 FR 5907	1997-5	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations	30, 34, 71, 150	105	06/27/00	FOR NRC REVIEW
62 FR 28948	1997-6	Radiological Criteria for License Termination	20, 30, 40, 70	102	08/20/00	Currently done during licensing. Will add in 2003 FOR NRC REVIEW
62 FR 39058	1997-7	Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea	30	102	01/02/01	

63 FR 1890	1998-1	Deliberate Misconduct by Unlicensed Persons	30, 40, 61, 70, 71, 150	100	02/12/01	FOR NRC REVIEW
63 FR 13773	1998-2	Self-Guarantee of Decommissioning Funding by Nonprofit and Non-Bond-Issuing Licensees	30, 40, 70	102	Not Required	N/A
63 FR 29535	1998-3	License Term for Medical Use Licenses	35	116	Not Required	N/A
63 FR 37059	1998-4	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations	34	105	07/09/01	FOR NRC REVIEW
63FR 39477	1998-5	Minor Corrections, Clarifying Changes, and a Minor Policy Change	20, 35, 36	116, 120	10/26/01	FOR NRC REVIEW
63 FR 45393						Oregon requires minors and D.P.W. By Reference 04/26/95
63 FR 50127	1998-6	Transfer for Disposal and Manifests: Minor Technical Conforming Amendment	20	120	11/20/01	None in State
64 FR 17506	1999-1	Radiological Criteria for License Termination of Uranium Recovery Facilities	40		06/11/02	None in State
64 FR 42269	1999-2	Requirements for Those Who Possess Certain Industrial Devices Containing Byproduct Material to Provide Requested Information	31	N/A	Not Required	Will add in 2003
64 FR 54543	1999-3	Respiratory Protection and Controls to Restrict Internal Exposure	20	120	02/02/03	Will add in 2003
64 FR 55525	2000-1	Energy Compensation Sources for Well Logging and Other Regulatory Clarifications	39	113	05/17/03	Will add in 2003
65 FR 20337						
65 FR 63749	2000-2	New Dosimetry Technology	34, 36, 39	120	01/08/04	Will add in 2003