

**INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
REVIEW OF NEBRASKA AGREEMENT STATE PROGRAM**

JULY 15-19, 1996

PROPOSED FINAL REPORT

U. S. Nuclear Regulatory Commission

01/13/97

ATTACHMENT 1

1.0 INTRODUCTION

This report presents the results of the review of the Nebraska radiation control program. The review was conducted during the period July 15-19, 1996, by a review team comprised of technical staff members from the Nuclear Regulatory Commission (NRC) and the Agreement State of Colorado. Team members are identified in Appendix A. The review was conducted in accordance with the "Interim Implementation of the Integrated Materials Performance Evaluation Program Pending Final Commission Approval of the Statement of Principles and Policy for the Agreement State Program and the Policy Statement on Adequacy and Compatibility of Agreement State Programs," published in the Federal Register on October 25, 1995, and the September 12, 1995, NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)." Preliminary results of the review, which covered the period June 25, 1994-July 12, 1996, were discussed with Nebraska management on July 19, 1996.

[Paragraph on Results of MRB meeting will be included in final report. Attachment 1, State's response will be included in final report.]

The Nebraska Department of Health (NDOH) is the agency within the State of Nebraska government that regulates, among other public health issues, radiation hazards. The Director, NDOH, is appointed by, and reports directly to, the Governor. Within NDOH, the Nebraska radiation control program, excluding X-ray, is administered by the Division of Environmental Health, under the Environmental Health Protection Section (EHPS). The Department of Health and the Environmental Health Protection Section organization charts are included as Appendix B. During the review period the Nebraska program regulated 157 specific licenses, which includes four large irradiators, manufacturers, broad academic, broad medical, radiopharmacy, radiographers, and the program is in the process of conducting a licensing review of a low-level radioactive waste disposal site. The low-level radioactive waste (LLRW) disposal regulatory program is jointly administered and managed by NDOH and the Nebraska Department of Environmental Quality (NDEQ) through a Memorandum of Understanding. In addition to its radioactive materials and low-level radioactive waste disposal programs, NDOH is responsible for the control of machine produced radiation and radon, and emergency response planning for two nuclear power plants. 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 Nebraska.

In preparation for the review, a questionnaire addressing the common and non-common indicators was sent to the State on May 17, 1996. Nebraska provided its response to the questionnaire on June 17, 1996. A copy of that response is included as Appendix C to this report.

The review team's general approach for conduct of this review consisted of:

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

program's performance. As noted above, that preliminary assessment was discussed with program management before the team's departure.

2.0 STATUS OF PREVIOUS REVIEW

The previous routine review concluded on June 23, 1994, and there were no recommendations made following the previous review of the radiation control program. Results of the current review for the IMPEP common performance indicators are presented in Section 3. Section 4 discusses results of the applicable non-common indicators, and Section 5 summarizes the review team's findings and recommendations.

3.0 COMMON PERFORMANCE INDICATORS

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

3.1 Status of Materials Inspection Program

The review 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.

Review of the State's inspection priorities showed that the State's inspection frequencies for the various types or groups of licenses are with few exceptions, at least as frequent as similar license types or groups listed in the frequency schedule in the NRC Inspection Manual Chapter (IMC) 2800. The State, in their response to the questionnaire, identified three types of licenses that were inspected at a frequency less than IMC 2800, as a result of not having yet incorporated the April 1995 revisions to IMC 2800 into their Inspection Procedures Manual. Those categories for which NRC revisions to IMC 2800 were more conservative than the Nebraska frequencies are: (1) High-Dose Rate Remote Afterloaders (HDRs) were inspected on a three year basis in Nebraska vs. NRC's change to a one year frequency, (2) Mobile Nuclear Medicine Services were inspected on a three year frequency vs. NRC's change to a two year frequency, and (3) Instrument Calibration Services Only - Other and Other Services were grouped together in Nebraska and inspected on a three or five year frequency vs. NRC's one-seven year frequency based on the type of service provided. Subsequently, the team found that the State does not have a service license requiring inspections at one or two year intervals, but they do have a service license for which IMC 2800 indicates a three year inspection frequency and the State was conducting inspections at a three year interval. Although the revised inspection frequencies had not been incorporated into the Inspection Procedures Manual, the State indicated that they had completed incorporation of the new priorities into their inspection tracking system and, as a result, the State indicated that they planned to review all licenses and assign the proper priority and inspection frequency and inspect accordingly, but inspection schedules had not been completed. In discussions with the new program manager, the team found that the

State intends to revise their Inspection Manual to reflect the April 1995 revisions to IMC 2800 by January 1997. When these inspection priority findings were raised with the Nebraska staff, the staff indicated that the loss of three key personnel had prevented them from updating procedures.

In their response to the questionnaire, Nebraska indicated that as of July 12, 1996, only nine licensees identified as core inspections in IMC 2800 were overdue by more than 25 percent of the NRC frequency. The State also indicated they planned to complete these overdue inspections by January 1997. It should be noted, that the staffing shortages created a considerable backlog of inspections and, in response, the State hired a contractor to conduct inspections, commencing on January 15, 1996, and ending no later than June 30, 1996. The contractor performed 27 inspections, of which 14 were overdue, during this period which helped to reduce the backlog of overdue inspections. Although the State should be commended for this effort, the team noted that communication of the results of the inspections, (i.e. inspection report results, recommendations, noncompliance, etc.) have been provided to only 5 of the 27 licensees inspected. In discussions, the program manager stated that they retained a former staff member as a consultant to review the results of the contractor inspections, but they were unsuccessful in their efforts to have the reviews completed in a timely fashion.

The team reviewed the State's experience with overdue inspections during the entire review period and found, based on 20 license files reviewed, 8 out of 12 core inspections were conducted as overdue inspections exceeding the 25 percent window allowed in IMC 2800. Four of the 8 overdue core inspections with a one-year inspection frequency were between 10-24 months overdue (averaging 15 months overdue), and four of the 8 overdue core inspections with a three-year inspection frequency were between 15-21 months overdue (averaging 17.3 months overdue). Non-core inspections were conducted as resources allowed.

With respect to initial inspections of new licensees, the team reviewed the inspections due by date in the numeric tracking system and the license files. Review of the tracking system identified 11 licenses, that required initial inspections. Of the 11 inspections due, identified from the tracking system, 2 had been identified as overdue in the State's questionnaire. Two of the 11 initial inspections due had been completed during the IMPEP review accompaniment process on July 16, 1996, which leaves 9 inspections due. Subsequent to the review, the State informed the team that 2 of the inspections due licenses are issued to nuclear power plants authorizing the use of radioactive material at temporary job sites in the event of an emergency situation, one is an out-of-state licensee from Wisconsin authorizing non-AEA material, and one other is an out-of-state service licensee for which no activity has occurred and is currently in a deferred status, which reduces the number of inspections due to 5.

Of the 20 files reviewed by the team, 4 were initial inspections, and 2 of the 4 initial inspections were not inspected within the stated frequencies identified in IMC 2800. The 2 overdue initial inspections were performed 16 and 13 months after issuance of the license. Subsequent to the review, the State informed the team that in response to suggestions made by the team, the State has implemented a condition for new licenses

that requires the licensee to notify the State of receipt of materials and the beginning of licensed activities in addition to the telephone contacts now used by the program.

The timeliness of the issuance of inspection findings was also evaluated during the inspection file review. From the 20 files examined both in detail for quality of the inspection program and for issuance of inspection findings, 14 (inspections performed in 1994 and 1995) had inspection correspondence sent to the licensee within 30 days after completion of the inspection. In the six remaining files (inspections performed in 1996 by the contractor), the inspection findings were in draft enforcement letters which had not been issued to the licensee. The six draft enforcement letters had been in the license file from 45 to 142 days. As previously indicated, the inspections findings of only 5 of the 27 inspections performed in 1996 by the contractor, had been provided to the licensee after review by the State. Management was aware of the delays in getting these inspection reports issued. Delays in issuing inspection reports impair the effectiveness of getting prompt corrective action by the licensee to any violations. Late reports make it difficult for the program to require a prompt response from the licensee. Finally, late reports open the program to criticism by licensees. The review team recommended that State management take immediate action to assure that the balance of the contractor completed inspection field notes and draft enforcement letters (22) are reviewed and issued to the appropriate licensees.

On examination of the major cause for the lack of timeliness in performing inspections at the stated frequency and the timely issuance of inspection findings, the IMPEP team noted the program lost three senior staff in the materials program and underwent two reorganizations during the review period. The team concluded that the failure to effectively manage the reduced level of program resources and performance and the lack of current, written, program procedures, are the primary root causes of the deficiencies found in the program.

A review of the results of previous program reviews of the Nebraska Radiation Control Program identified that similar problems were found in 1990 and 1992 that resulted in a withholding of findings of adequacy to protect public health and safety and compatibility for both reviews. During the 1992 review, significant problems were identified in the area of Status of Inspections and Staffing and Training. The 1992 review indicated that there had been no improvement in problem areas identified during the 1990 review. During the 1990 review, significant problems were identified in the area of Status of the Inspection Program, Staffing and Training, Status and Compatibility of Regulations, Enforcement Procedures, and Management. The 1990 review indicated a continuation of the same problems found during two previous reviews in 1988 and 1986. The 1994 review resulted in a finding of adequate and compatible based on the State filling four vacant positions that had remained open for over a year despite active recruiting, reduction of the inspection backlog, and expected continued reduction due to increased availability of staff. In 1994, the State also indicated that efforts were underway to develop and implement revised procedures. The team found that the efforts begun in 1994 to maintain adequate staffing and control inspection backlogs were unsuccessful, and the efforts to implement new procedures were not completed.

The State reported in its response to the questionnaire that 31 licensees filed 163 requests for reciprocity during the review period; 20 of the 31 licensees were Priority 1, 2, or 3 (7 industrial radiography, 7 well logging, 1 mobile nuclear medicine service and 5 other service licensees). The State conducted 2 inspections of reciprocity licensees (industrial radiography) during the review period. In its response to the questionnaire, the State reported that the program staff accompanied by an IMPEP team member performed one field inspection on a non-reciprocity industrial radiography licensee on May 26, 1996. The review team recommends that the State follow the inspection frequency for conducting inspections of reciprocity licensees contained in IMC 1220, "Processing of NRC Form 241, Report of Proposed Activities in Non-Agreement States, and Inspection of Agreement State Licensees Operating Under 10 CFR Part 150.20."

In addition to the recommendations stated above regarding the contractor performed inspections, the review team recommended that the Nebraska Radioactive Materials Program: (1) establish an action plan or procedure to assure inspections are completed at the required frequencies stated in the NRC's IMC 2800 and conduct reciprocity licensee inspections at the frequencies stated in IMC 1220; (2) establish an action plan or procedure for coordinating deviations from the schedule between staff and management based on the risk of license operations, past performance and need to temporarily defer the inspections to address more urgent or critical priorities; (3) organize a "get well" plan for rescheduling missed or deferred inspections, that takes into account unplanned loss of experienced staff; (4) establish a plan or methodology to assure initial inspections are performed within 6 months of receipt of licensed material, 6 months of beginning licensed activities or within 1 year of license issuance, whichever comes first, in accordance with the Nebraska Inspection Manual and NRC's IMC 2800; and (5) incorporate the inspection frequencies contained in NRC's IMC 2800 into the Nebraska Inspection Manual.

Based on the IMPEP evaluation criteria, the review team recommends that Nebraska's performance with respect to the indicator, Status of Materials Inspection Program, be found Satisfactory with Recommendations for Improvement.

3.2 Technical Staffing and Training

In reviewing this indicator, the review team considered the radioactive materials program and the NDOH low-level radioactive waste program staffing levels, the technical qualifications of the staff, staff training, and staff turnover. To evaluate these issues, the review team examined the State's questionnaire responses regarding this indicator, interviewed program management and staff, and considered the identified backlogs in licensing and compliance actions.

Regulatory responsibility for the control of radiation in Nebraska is split into four separate organizational units, three in the NDOH, and one unit in NDEQ, jointly administered by both NDOH and NDEQ, with primary responsibility for regulating a proposed LLRW disposal site. Since the last program review in 1994, there have been two reorganizations in the NDOH, the last of which was completed in mid-1995. Prior to the reorganizations, the NDOH radiation control program existed as a division with four subdivisions: radioactive materials (RAM), LLRW, machine produced radiation (X-ray) and emergency response. The

RAM program was managed by the division director who also supervised the other three program managers. As a result of the reorganizations, two units (RAM and LLRW) are currently in the Division of Environmental Health, Environmental Health Protection Section (EHPS) (X-ray was placed under another section). Emergency response activities, are now the responsibility of the NDOH LLRW program manager. The RAM and LLRW program managers report to a section administrator. Additionally, technical staffing and training for the organizational unit located in the Department of Environmental Quality, Low-Level Radioactive Waste Disposal Program, consisting of both NDEQ and NDOH LLRW staff, is addressed in Section 4.2.3 of this report. Organization Charts for NDOH and EHPS can be found in Appendix B.

In the second reorganization, fully implemented as of July 1, 1995, the division director position was lost without naming a permanent RAM program manager. NRC received notification through letters from the State that an experienced RAM staff member had been designated program manager for Radioactive Materials on April 24, 1995, and again in a letter dated June 13, 1995, but this person left the program on June 23, 1995. In a letter dated May 15, 1995, the LLRW program manager, was given the additional responsibility for all radiological emergency response activities. A July 20, 1995 internal memorandum that was provided to the IMPEP team during the review, designates the LLRW program manager as Acting RAM program manager, but based on statements made by program staff to the team, it was not clear to the RAM staff that the designated duties went beyond signature authority for licenses. In a March 25, 1996 letter, NRC was notified that the Section Administrator for Environmental Health Protection would be handling matters related to radioactive materials. A permanent RAM program manager was not named until May 1996, a delay of nearly one year.

The current radioactive materials program technical staff consists of a program manager and three inspector/license reviewers while the LLRW program technical staff consists of a program manager and two professional positions. The two staff members of the LLRW program are cross-trained to provide technical support to the RAM program on a short-term basis, as needed. Additionally, the RAM and LLRW programs supplemented staff effort during the review period with contractors. The review team found that the current staffing level, with contractor support, and establishment of effective management controls, is adequate to administer the regulatory program.

With respect to RAM contract support, the State did not include a provision specifying personnel qualifications in their Statement of Work. The RAM program contractor, in bid documents, specified the use of individuals who possessed the education and experience to meet the requirements of this indicator, however, there was no specific provision concerning personnel qualifications included in the contract. This was noted by the program manager as a corrective action item for future contracts. The team concluded that the contractor (based on discussions with the RAM program manager), has adequate educational qualifications, but recommends that the qualifications of contractor personnel be tied to the contract as identified by the program manager or as accomplished by the Nebraska LLRW program. The program manager further stated that the contractor is an experienced consultant in the health physics area and personnel possessed appropriate technical qualifications.

The team reviewed staff turn-over and qualifications, found that three experienced members of the RAM staff left during the review period, all at approximately the same time as the second reorganization. The review team found that although it appears that management was responsive in filling two of the vacant positions within a short period of time with cross-trained staff from the X-ray and LLRW programs (with adequate educational background and experience), the fact that a key position that provides continuity, direction and support to the radioactive materials program staff, that of the Radioactive Materials program manager, was not permanently filled for almost a year, and was one of the root causes of the difficulties experienced in the program. The team observed that these difficulties, identified below, accelerated at the time of the second reorganization and the nearly concurrent loss of three experienced staff members of the RAM program. Difficulties encountered during the review period include the following: (1) a backlog of 8 core inspections, (2) 22 inspections pending supervisory review and notification of the findings to the licensee, of which one contained health and safety issues, (3) inspection reports were incomplete, (4) a backlog of 101 licensing actions of which 73 could have health and safety related issues; included in the backlog of 101 licensing actions were:

New RSO - 9	Add authorized user - 9
Add or new location of use - 10	Terminate - 5
Renewal - 28	Delete location of use - 3
Short Form Renewal - 9	Add new use - 2
Add RAM - 7	Other - 2

(5) no incident reporting to NRC since June 1995, (6) incomplete documentation of incident response and response to allegations, (7) regulations required for compatibility not adopted in timely fashion, and (8) no "get-well" plan.

All of these factors considered collectively led the team to find that the performance with respect to the criteria for this indicator was inadequate. Details of these problems are discussed elsewhere in this report. The team found that the primary root causes for the deficiencies found in the program are (1) the failure of NDOH management to effectively address the reduced level of program performance, and (2) lack of current, written, program procedures or failure of staff to follow those procedures.

The Radioactive Materials program manager and all three full time staff perform duties in licensing, inspection, and event response. Although the staff did try to achieve a balance between the licensing and inspection functions, the significant backlog found in the area of inspections and licensing and other deficiencies found in the program demonstrate that the effort was not adequate to maintain the program. The team found it difficult to evaluate the training of the personnel involved with the materials control program, because there was no written program for staff qualification. According to the information provided in the questionnaire, all newly hired health physicists are required to attend the NRC core training courses outlined in the now suspended May 28, 1992, Policy Statement (57 FR 224950), as well as the five-week health physics course. However, there was no written documentation that stated this requirement had been met. The team found no program records to show that existing materials program staff members have taken the courses.

The only records found were those maintained by individual staff members. Subsequent to the review, the team was informed that database records for a majority of the training received by program staff was available, but were unknown to the new program manager.

The radioactive materials program staff also described in-house and on-the-job training processes in their response and during interviews. Briefly, new staff are assigned to review State regulations and procedures and to accompany senior license reviewers/inspectors, then are assigned increasingly complex licensing duties under the direction of senior staff and accompany experienced inspectors during increasingly complicated inspections. New staff are assigned independent inspections after demonstrating competence. The criteria for determining the progress of new staff have not been established. The team observed that the lack of criteria and the vacant radiation program manager position for almost one year resulted in an inspector (hired in July 1995) not yet considered trained to conduct even low priority inspections after one year on the job. The team recommends that a written program for staff qualification, including retaining training records, be developed.

The team recommends that the State develop comprehensive administrative procedures, sufficient to guide the day-to-day operation of the program in the event of another loss of senior staff. The procedures should include a formal process for bringing to the attention of upper management the increase of significant backlogs of licensing, inspection, or enforcement actions, or any other situation which increases the risk to public health and safety. Licensing procedures should include prioritization of licensing actions based upon identified factors, including health and safety significance for new and previously received applications. The team also notes that there is a legislative mandate to further reorganize by combining NDOH and four other Departments, to be completed by the end of calendar year 1996. The team recommends that NRC monitor the Nebraska program with increased attention to the effects of the further reorganization.

As identified in Section 3.1 above, the team found that the problems encountered during the period represent continuing trends of deficiencies found in previous reviews of the Nebraska program. The exception was the 1994 review, wherein the previously identified staffing shortages were eliminated when the State filled four long vacant positions. But the team found that the State was unable to maintain adequate staffing beyond one year. The team also concluded that the efforts begun in 1994, to maintain adequate staffing, reduce the inspection backlog, and implement revised procedures were unsuccessful. Collectively considering the historical weaknesses of the program, the consistent significant staffing problems, the consequences of the loss of three key staff members, other deficiencies found throughout the program and lack of program management effectiveness to address these weaknesses, the review team concludes that the State's program relative to the criteria for this indicator was inadequate.

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

3.3 Technical Quality of Licensing Actions

The review team examined casework and interviewed the reviewers for 12 licenses and 28 licensing actions completed during the review period covering June 25, 1994-July 12, 1996. The review team was unable to review or evaluate statistical information related to any backlog of cases prior to July 1995, due to the fact that the licensing program records for that time were contained in a handwritten logbook that did not easily allow for statistical review of pending actions. The team noted that the new RAM program manager has implemented a computerized tracking system, beginning with July 1995, to allow tracking of reviews, letters, replies, and license issue date. This tracking system is a great improvement over the handwritten sheets kept in the logbook and updated by individual reviewers prior to July 1995, and will allow staff to keep better track of the licensing backlog. Licensing actions were reviewed for completeness, consistency, proper isotopes and quantities used, qualifications of authorized users, adequate facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions. Casework was reviewed for timeliness, adherence to good health physics practices, reference to appropriate regulations, documentation of safety evaluation reports, product certification or other supporting documents, consideration of safety evaluation reports, product certification or other supporting documents, consideration of enforcement history on renewals, pre-licensing visits, peer or supervisory review, and proper signature authorities. Licenses were reviewed for accuracy, appropriateness of the license and its conditions and tie-down conditions, and overall technical quality. The files were checked for retention of necessary documents and supporting data.

The cases were selected to provide a representative sample of licensing actions which had been completed in the review period and to include work by all reviewers. The cross-section sampling included 12 licenses of the following types: medical/academic broad scope, medical-institution and medical-mobile, industrial radiography, research and development, and portable gauges. Licensing actions included three new licenses and 25 amendments. A list of these licenses with case-specific comments is included in Appendix D.

The review team found that the licensing actions completed were thorough, complete, consistent, and of acceptable quality with health and safety issues properly addressed. Special license tie-down conditions were stated clearly, backed by information contained in the file, and were inspectable. The team noted a few deviations in the files of minor significance such as the use of small yellow post-it pad notes to attach pertinent information rather than a permanent form of documentation i.e., memorandum. All recent licensing actions included a peer review which was recorded on a License Action Review Record in the license file. No potentially significant health and safety issues were identified with completed licensing actions.

In response to the questionnaire, and discussions with the program manager, the State indicated that three staff perform both license reviews and inspections, and that Nebraska has approximately 157 specific licenses. Due to problems encountered by the team in trying to review the handwritten licensing logbook, we were unable to review or evaluate case backlog prior to July 1995. In the period from July - December 1995, 38 licensing

actions were completed. From January - June 21, 1996, 48 licensing actions were completed. Subsequent to the review, the State informed the team that they had completed 48 licensing actions from July - December 1995, and 70 licensing actions January 1 - June 21, 1996. During the review, the team noted that the new radioactive materials program manager, appointed in May 1996, has implemented a computer listing of licensing actions, beginning with July 1995, to allow tracking of reviews, letters, replies, and license issue date. This tracking system is a great improvement over the handwritten sheets kept by individual reviewers, prior to July 1995, and will allow staff to keep better track of the licensing backlog.

In discussions with staff, priorities of licensing actions were stated to be based upon health and safety issues, and applicants need. The team noted, that the disruption caused by staff turnover has resulted in 101 licensing actions not having been acted upon in a timely manner, as indicated in Section 3.2, Technical Staffing and Training.

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

3.4 Technical Quality of Inspections

The team reviewed enforcement documentation, inspection field notes, and data base information for 20 materials inspections conducted during the review period. The casework included inspections performed by the current program manager: two health physicists who terminated their employment with the State during the review period and inspections performed by a contractor hired to help with the inspection backlog created by the loss of three key staff and several reorganizations. The sampling included three nuclear medicine licensees, two each pool irradiator, service, fixed gauge, portable gauge and academic broad licensees and one each nuclear medicine/brachytherapy, mobile nuclear medicine, self-shielded irradiator, radiography, academic/radiography, academic non-broad and teletherapy licensees. Appendix E provides a list of inspection cases reviewed in depth with case-specific comments.

The review team noted that the Nebraska program was adequate with respect to this indicator. Routine inspections usually covered all aspects of the licensee's radiation safety program. The team also noted that, during the accompaniment of State inspectors, the inspectors observed licensed operations or had operations demonstrated whenever possible. The observation of licensed activities provides the inspectors with an indication of the effectiveness of the licensee's radiation protection program. Finally, during the review period, the State conducted team inspections of larger licensees. Having multiple inspectors review a particular licensee's operations may lead to more thorough inspections and provide the opportunity for less experienced inspectors to observe experienced inspectors as an effective training technique.

The team reviewed the inspection field notes and found them to be comparable with the types of information and data collected under NRC Inspection Procedure (IP) 87100. The inspection field notes provided documentation of inspection findings in a consistent

manner. The State uses separate inspection field notes for various classes of licensees, such as nuclear medicine, portable gauges, radiography, and industrial/academic. The State has not yet developed field notes specific for the inspection of HDRs or nuclear pharmacies. The State uses the nuclear medicine field notes for these type of licensees. The inspection field notes provide documentation of the scope of the licensee's program including, posting; storage and use of radioactive material; receipt, transfer, and disposal of radioactive material; inventory; leak tests; radiation protection program; personnel monitoring, training; independent measurements; and inspection findings.

The team found several deficiencies during review of field notes in the compliance files, such as incomplete documentation of technical and administrative information, which are addressed in Appendix E, and further clarified later in this section. The team noted that during the accompaniments of State inspectors, the State inspectors examined appropriate radiation health and safety issues at licensees' facilities. All the inspectors, who were accompanied by a team member, used the field notes to assure that all aspects of the program that could be reviewed were included in the scope of the inspection. The inspectors performed independent measurements whenever the licensee was using licensed material and also measured for radiation levels surrounding materials in storage. Inspectors' written comments in the field notes and the team member's observations during accompaniments indicate that safety issues were discussed with licensee personnel. The field notes indicated that the licensees' operations were observed when licensed operations were being conducted by the licensee and interviews with the State inspectors and observation by the team member during accompaniments support that they routinely tour licensee areas such as laboratories, other locations of use and storage areas. The inspectors emphasized the observation of licensed activities to determine the effectiveness of the licensee's radiation safety program and compliance to the requirements, a critically important inspection technique. The field notes indicated that the inspectors examined and, when appropriate, closed-out previous violations. Also because health physicists serve both as inspectors and license reviewers, there was evidence that licensing issues were considered in the inspection process.

Four inspector accompaniments were performed by a review team member during the period of June 24-28, 1996, and one accompaniment was performed during the review period on July 16, 1996. The accompaniments included the following: (1) two inspections with two individuals from the LLRW program, the program manager and a health physicist, who are cross-trained and qualified as inspectors in the RAM program during an inspection of a radiography program (including a field site visit) and a mobile nuclear medicine program, respectively, and a second health physicist from the LLRW program, who was being cross-trained in the Materials Program assisted on these inspections; (2) a third inspection with the Radioactive Materials program manager and a staff health physicist during inspections of a large nuclear medicine and a self-contained blood irradiator program at a major medical facility; and a fourth inspection with another staff health physicist during the initial inspections of two separate portable gauge programs, one of which also included a field site. These accompaniments are also identified in Appendix E. During the accompaniments the Nebraska lead inspectors demonstrated appropriate inspection techniques and knowledge of the regulations. The inspectors were well prepared and very thorough in their reviews of the licensee's

radiation safety program. Each inspector emphasized observation of the licensee's activities and interviews with personnel to assess the effectiveness of the licensee's radiation safety program. Overall, the technical performance of the inspectors was satisfactory, and their inspections were adequate to assess radiological health and safety at the licensed facility. The technical quality of inspections and the knowledge of the inspectors is a strength in the Nebraska program. The review team noted that the State relies on the technical knowledge of the inspectors to identify root causes of non-compliance and poor licensee performance rather than having procedures in place which normally could be used to assist the inspectors in this identification.

In response to the questionnaire, the State reported the number and type of supervisory accompaniments by senior program staff is not defined by a program procedure and they have not been documented in the past. However, in 1994, three inspectors were accompanied by a contract consultant who observed the inspector's performance. The consultant was performing a review of the program staff by accompaniment as part of his contract to develop an Inspection and Enforcement Manual. Copies of the reports submitted for two of three staff evaluated were provided. There were no supervisory accompaniments of the Nebraska inspectors during 1995 and in the first six months of 1996. It should be noted that two of the three inspectors accompanied by the contractor in 1994 have since left the program and the third was promoted to program manager. The program manager indicated in discussions during the review that he was the lead inspector on several occasions and was accompanied by a staff health physicist for purposes of training, but had not performed an accompaniment in his capacity as the manager of the Radioactive Materials Program.

Therefore, the review team recommends that the State consider for adoption a policy of annual supervisory accompaniments of all individuals who perform inspections for the Radioactive Materials Program.

In response to the questionnaire, the State indicated that a contractor was hired to develop an Inspection and Enforcement Manual, which was completed in April 1994. The revised Enforcement Manual contains standardized text covering compliance issues for use in issuance of Notice of Violations (NOV) to licensees. Use of standardized text would enhance the efficiency of the compliance process; additionally, the Manual would prove very useful for training new staff. The program manager indicated that future plans included updating the Manual and implementing use of the Manual by the staff. Section 3.2 of this report covers procedures in greater detail.

It was noted that the State has available a variety of portable instruments for routine confirmatory surveys and use during incidents and emergency conditions. The instruments were a mix of low and high range Geiger-Mueller detectors and pancake probes, micro R meter, alpha detector, and available quantitative instruments in the Department of Health Laboratory. The portable instruments used during the inspector accompaniments were observed to be operational and calibrated. The team noted that the instruments are calibrated on an annual basis.

It was found that the State is generally performing unannounced inspections of materials licensees. Initial inspections and geographically-distant location inspections are usually announced.

A review was conducted of the procedures and documentation of inspector field notes or completed reports to determine that they are complete and reviewed promptly by supervisors or management. That review found that previous practice indicated that a supervisory review was conducted. The radiation program manager position was vacant as of June 1995, and the person delegated responsibility for signing off on NOV's left the program on June 23, 1995. Subsequently, the team was provided with a July 1, 1995, internal memorandum designating the LLRW program manager as acting RAM program manager, but RAM program staff were not clear as to whether this went beyond signature authority for licensing actions. Therefore, it was not clear to the team or to the RAM staff that any one in the radioactive materials program had official supervisory signature responsibility prior to the announcement of a new program manager in May 1996. The normal practice of a supervisory review was not practiced during this time.

Inspection findings generally indicated that the State planned to take appropriate regulatory action with the following exceptions. As previously indicated, inspection findings, in the form of a letter to the licensee, had not been issued for 22 of the 27 inspections conducted by the contractor. Additionally, the team found that six of the 22 pending inspection findings resulted in a recommendation for enforcement action that had not yet been issued to the licensee. In one case, as indicated in Appendix E, the team found that the enforcement letter identified five violations to the licensee and the documentation in the field notes provided information for only two violations. The review team also found some other problems with the documentation of information on the field note reports as noted in the comments in Appendix E. The field notes on page one provide space for administrative information such as: inspection report no., license no., licensee (name and address), licensee contact, telephone no., priority, date of last inspection, date of this inspection, type of inspection, summary of findings and action, next inspection date and whether next inspection is at a normal, reduced or extended frequency, signature and date the inspector signed, and signature and date supervisor approved the report. Eleven of the field note reports did not have all the administrative information required. Ten reports were not approved with a supervisor's signature and date; and a few of the typed inspection reports did not contain any signature. The team believes that supervisory approval of inspection findings documented in the field notes prior to issuance of an enforcement letter is necessary to assure that the field notes contain sufficient information to support any violations or recommendations in an enforcement letter. In addition, seven of the field note reports had no technical information documented in areas such as: training of ancillary personnel; exit meeting attendees; pH, clarity and Cl or F concentrations in pool water; independent measurements, inventory of brachytherapy sources after return to storage, and Radiation Safety Committee (RSC) minutes/committee composition. The team noted that Nebraska Code 10.03, effective May 30, 1994, and compatible to 10 CFR 19.12, does not contain the August 1995 revisions to 10 CFR 19.12.

In discussions with the program manager, the team was informed that the previous requirement for typewritten field notes to be used as the documentation of inspection findings delayed the supervisory review until the field notes were typed. The new program manager stated that handwritten field notes would be accepted during the interim time period, while the staff try to complete the backlog of inspections. The new program manager stated that future plans include standardizing and automating the boilerplate inspection information.

In addition to the recommendation stated above regarding annual supervisory accompaniments of all individuals who perform inspections, the review team recommended that the program: (1) develop a plan or procedure to assure that field notes, as well as, reports, and enforcement letters are promptly reviewed, signed and dated by a supervisor within the recommended 30 day time frame for issuance of inspection findings; and (2) perform an immediate review of all contractor field notes and draft enforcement letters in order to finalize and issue the findings of the remaining 22 inspections to the licensees involved.

Based on the IMPEP evaluation criteria, the review team recommends that Nebraska's performance with respect to the indicator, Technical Quality of Inspections, be found Satisfactory with Recommendation for Improvement.

3.5 Response to Incidents and Allegations

In evaluating the effectiveness of the State's actions in responding to incidents and allegations, the review team examined the State's response to the questionnaire relative to this indicator and reviewed the incidents reported for Nebraska in the "Nuclear Material Events Database (NMED)" against those contained in the Nebraska casework and license files, and supporting documentation, as appropriate for six incidents. In addition the team interviewed the Radioactive Materials program manager. Due to recent staff turnover the team was unable to interview other staff for this indicator.

Responsibility for initial response and follow-up actions to material events rests with the Radioactive Materials Program and the Low-Level Radioactive Waste Program. Written procedures require a prompt response to incidents by the staff and provide additional procedural guidance. Written procedures for allegations also require prompt response, but contained no further procedural guidance. The review team found that allegations were handled as routine incidents and files contained incomplete or no documentation of inspection results or State action. The team noted in one case that investigative techniques were insufficient to appropriately resolve alleged issues. The review team recommended revising the allegations procedures to incorporate key areas, i.e., documentation of any communications with the alleged, documentation of the inspection findings, interviewing techniques, etc., identified in NRC Management Directive 8.8, Management of Allegations.

The review team also noted that the staff did not have a procedure for tracking the status (i.e. identification, receipt, follow up, and closeout) of material events. The review team recommended that the staff use the draft "Handbook on Event Reporting in the Agreement

States (Handbook)," published March 1995, for review and reporting of material events to NRC. The Handbook identifies the NRC Operations Center, Office for Analysis and Evaluation of Operational Data, as the proper group to receive voluntary notification of the occurrence of significant events in an Agreement State, and provides guidance on the identification, reporting, follow-up reporting, and closeout of material events.

The review team found, through discussions with the Radioactive Materials program manager, that the staff have been unable to voluntarily report to NRC the occurrence of any material events since June 1995, due to the loss of three experienced staff members. Limited resources had to be redirected to other more critical areas. Therefore, the team was unable to evaluate whether or not the State provided information on all events that may have occurred during the period of review prior to June 1995. Two reportable events were found by the team during review of selected case files.

Through a review of information provided in the questionnaire and through review of selected case files, the team found that four reportable events had occurred, three of which had not been reported to NRC, and subsequently NMED. Two of the reportable events were identified in the State's response to the questionnaire as significant events that had occurred during 1995. Two of the reportable events examined by the team involved equipment malfunctions at an irradiator facility, and one involved loss of material. Other case files reviewed included a 1994 event involving the loss of material, that had previously been reported to NRC, an event involving the unauthorized use of equipment, and an event involving loss of control of radioactive material, both of which had not been reported to NRC. The team noted several case file deficiencies, i.e., one file contained no documentation of inspection results, another indicated insufficient follow-up action by the State to the loss of control of radioactive material, and a third indicated lack of State

action to a late notification of the occurrence of an event by the licensee. With regard to the incidents that occurred at an irradiator facility, and one event involving equipment malfunction as a result of the unauthorized removal and replacement of equipment, the team discussed the need to report events involving equipment malfunction or possible defects of equipment with the program manager and the importance of documentation of contact with the alleged. The review team concluded that the State's documentation and in one instance response, to the occurrence of events involving the use of radioactive material and response to allegations needs improvement. They did not have a complete understanding of reporting requirements, and lacked proper procedures for handling allegations. A list of the incident reports examined is contained in Appendix F.

In addition to the above recommendation that the Nebraska staff revise the allegations procedures and incorporate use of the "Event Reporting Handbook," the team recommends establishment of comprehensive procedures for tracking, follow up and close out of events involving the use of radioactive material covered under the Atomic Energy Act. The review team also recommends that the State immediately begin reporting current material events to NRC and send in information on the three events identified during the review as reportable, to the State, but were not previously reported to NRC.

Based on the IMPEP evaluation criteria, the review team recommends that Nebraska's performance with respect to this indicator, Response to Incidents and Allegations, be found Satisfactory with Recommendations for Improvement.

4.0 NON-COMMON PERFORMANCE INDICATORS

4.1 Legislation and Regulations

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

4.1.1 Legislative and Legal Authority

Along with their response to the questionnaire, Nebraska provided the review team with copies of legislation that affects the radiation control program. The Nebraska Department of Health regulates use of radioactive material. NDEQ and NDOH have shared responsibilities for regulation of the planned low-level radioactive waste site. Based on the response to the questionnaire, and on statements by the Director of the Department of Health that there had been no change to the State legislation that affected the duties or responsibilities of the materials programs, the review team did not review the legislation but relied on previous reviews where State legislation was determined to be adequate. The team did note the legislative changes that will result in the reorganization of the Department.

4.1.2 Status and Compatibility of Regulations

Nebraska's latest rules and amendments became effective May 30, 1994. The equivalent NRC rules are: "Decommissioning," 10 CFR Parts 30, 40, and 70; "Emergency Planning," 10 CFR Parts 30, 40, and 70; "Standards for Protection against Radiation," 10 CFR Part 20; "Safety Requirements for Radiographic Equipment," 10 CFR Part 34; "Notification of Incidents," 10 CFR Parts 20, 30, 31, 34, 39, 40, and 70; and "Decommissioning Recordkeeping and License Termination: Documentation Additions," 10 CFR Parts 30, 40, 70, and 72. Not all of these regulations were promulgated within the three year period following the adoption of the NRC regulation. The team reviewed the final published Nebraska regulations equivalent to the above and found them to be compatible with the NRC regulations.

There are four irradiators in use in Nebraska which would be subject to the regulations in "Licensing and Radiation Safety Requirement for Irradiators," 10 CFR Part 36. Equivalent rules were in development when the reorganizations and personnel turn over discussed earlier in this report occurred. As a result of personnel reassignments, the rules were not adopted by their due date of July 1, 1996. At the time of the review, the rules were scheduled for public hearing and adoption was expected by the end of the calendar year.

Nebraska does not regulate uranium recovery operations, and does not have rules equivalent to NRC's regulations applicable to uranium recovery contained in 10 CFR Part 40. Therefore, it will not adopt the regulations equivalent to "Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards," 10 CFR Part 40 amendments (59 FR 28220) that became effective on July 1, 1994, and will need to be adopted by July 1, 1997. Nebraska has assumed regulatory authority for a low-level radioactive waste site, and has selected an enhanced technology for disposal. Therefore, the State does not need to adopt the land disposal definition part of the "Definition of Land Disposal and Waste Site QA Program," 10 CFR Part 61 amendments (58 FR 33886) that became effective on July 22, 1993. The State has adopted the QA program portion of the amendment.

In addition to the above, the team found that work is in progress to develop equivalent rules to the following, which the program has scheduled for adoption in January 1997.

- "Quality Management Program and Misadministration," 10 CFR Part 35 amendment (56 FR 34104) that became effective on January 27, 1992. An NRC staff evaluation of whether this rule will be used to evaluate Agreement State compatibility continues.
- "Self-Guarantee as an Additional Financial Mechanism," 10 CFR Parts 30, 40, 70 amendments (58 FR 68726, 59 FR 1618) that became effective on January 28, 1994. Note, this rule is designated as a Division 2 matter of compatibility. Division 2 compatibility allows the Agreement State flexibility to be more stringent (i.e., the State could choose not to adopt self-guarantee as a method of financial assurance. If a State chooses not to adopt this regulation, the State's regulation, however must contain provisions for financial assurance that include at least a subset of those provided in NRC's regulations, e.g., prepayment, surety method (letter of credit or line of credit), insurance or other guarantee method (e.g., a parent company.)
- "Timeliness in Decommissioning," 10 CFR Parts 30, 40, 70 amendments (59 FR 36026) that became effective on August 15, 1994.
- "Preparation, Transfer for Commercial Distribution and Use of Byproduct Material for Medical Use," 10 CFR Parts 30, 32, and 35 amendments (59 FR 61767, 59 FR 65243, 60 FR 322) that became effective on January 1, 1995.
- "Frequency of Medical Examinations for Use of Respiratory Protection Equipment," 10 CFR Part 20 amendments (60 FR 7900) that became effective on March 13, 1995. Note, this rule is designated as a Division 2 matter of compatibility. Division 2 compatibility allows the Agreement States flexibility to be more stringent (i.e., the State could choose to continue to require annual medical examinations).
- "Low-Level Waste Shipment Manifest Information and Reporting," 10 CFR Parts 20 and 61 amendments (60 FR 15649, 60 FR 25983) that will become effective

March 1, 1998. Nebraska and the other Agreement States are expected to have an equivalent rule effective on the same date.

- "Radiation Protection Requirements: Amended Definitions and Criteria," 10 CFR Parts 19 and 20 amendments (60 FR 36038) that became effective August 14, 1995.
- "Medical Administration of Radiation and Radioactive Materials," 10 CFR Part 20 and 35 amendments (60 FR 48628) that became effective October 20, 1995.
- "Clarification of Decommissioning Funding Requirements," 10 CFR Parts 30, 40, and 70 amendments (60 FR 38235) that became effective November 24, 1995.
- "Compatibility with the International Atomic Energy Agency," 10 CFR Part 71 amendment (60 FR 50248) that became effective April 1, 1996.

The review team examined the procedures used in the State's regulation promulgation process and found that the public is offered the opportunity to comment on proposed regulations during a comment period and in a public hearing that follows the comment period. According to the staff member responsible for rules development, NRC is provided with drafts for comment on the proposed regulations early in the promulgation process. A copy of the final regulation is submitted to NRC.

During discussions with the review team, the staff explained that they had begun the process of drafting revisions to the regulations which they expect to promulgate in January 1997 for new regulations due through 1998. The State is aware of the importance of maintaining compatible regulations, and the State plans to update regulations yearly to maintain compatibility.

The review team identified a possible incompatibility in Section 012 of the Nebraska regulations, which are rules equivalent to NRC's 10 CFR Part 61. The Nebraska regulations, as written, apply the public dose limits in 180 NAC 1-012.22 (equivalent to 10 CFR 61.41) to low-level radioactive waste facilities that process or store waste, as well as to disposal sites. Under NRC regulations, such facilities would not be subject to the equivalent public dose limits in 10 CFR 61.41, but rather to the public dose limit in 10 CFR Part 20. The Nebraska regulations may thus be more stringent than the equivalent NRC rules, however, both 10 CFR 61.41 and 10 CFR 20.1301 are Division 1 compatibility requirements. In response to the team's request for clarification regarding application of the public dose limits in the State's equivalent regulations to 10 CFR Part 61, the State responded in a letter dated December 13, 1996. The State responded that they do not currently have any brokers, treatment facilities, or storage facilities to which this regulation has been applied. In accordance with the report that identified it as a Division 1 compatibility requirement which can only be applied to land disposal facilities, the Department intends to amend the regulation and anticipates this can be done by June 30, 1997. The State included a copy of the proposed amendment to 180 NAC 1-012.22 (equivalent to 10 CFR 61.41). Since there are no licensees to which the more stringent

standard is applicable and Nebraska has committed to revise 180 NAC 1-012.22, the review team believes this matter is not a significant issue.

Based on the IMPEP evaluation criteria, at the time of the review, the team recommended that Nebraska's performance with respect to the indicator, Legislation and Regulations, be found unsatisfactory due to the failure to adopt regulations equivalent to 10 CFR Part 36 by July 1, 1996. Subsequent to the review, the State informed the team that Section 019 of the Nebraska Code, "Licenses and Radiation Safety Requirements for Irradiators," was adopted effective October 30, 1996, and inquired whether the team reviewed the area of other legally binding requirements. Note, the option of legally binding license conditions equivalent to the requirements contained in 10 CFR Part 36 had not been officially implemented at the time of the review, therefore, the reviewer did not look at this option. In response to the States adoption of 10 CFR Part 36 equivalent regulations, the team, based on additional information, is recommending that Nebraska's performance with respect to this indicator be found Satisfactory.

4.2 Low-Level Radioactive Waste Disposal Program

In the process of evaluating this performance indicator, the review team studied the State's response to the questionnaire, reviewed the terms of the Memorandum of Understanding between NDEQ and NDOH, compared Nebraska LLRW statutes and regulations with those of the NRC, evaluated the qualifications of the technical staff and contractors, reviewed the States written procedures and plans, reviewed or discussed parts of the safety analysis report (SAR), audits, and contractor reports, and any other supporting documentation, as necessary, and interviewed all staff and managers assigned to the LLRW program. In addition, the team evaluated the effectiveness of the shared responsibility for regulation of LLRW in Nebraska.

4.2.1 Introduction

The State of Nebraska received a License Application from U.S. Ecology on July 27, 1990, to operate a low-level radioactive waste facility in the State. A site characterization plan was submitted to NDEQ on June 6, 1989. The State is presently reviewing the License Application submitted by U.S. Ecology, to develop a facility in the State; therefore, limited information may exist with respect to State activities for some of the performance indicators.

In the shared responsibility for regulation of LLRW, the NDOH and the NDEQ programs have agreed to procedures that are detailed in Section 1, Licensing Organization, of the Licensing Program Plan (LPP-01). As part of a commitment made in response to NRC recommendations following the 1990 program review, there are monthly meetings attended by the LLRW Program Manager and Director from each department. The meetings are not required as part of LPP-01. These meetings appear to be an effective means to keep management aware of program issues and progress, and to resolve issues that could be disruptive to the program.

4.2.2 Status of Low-Level Radioactive Waste Disposal Program

With the program in the pre-licensing non-operational phase, inspections are not applicable.

4.2.3 Technical Staffing and Training

NDOH staff assigned principally to the LLRW program include a program manager (a health physicist), a health physicist with a specialty in environmental surveillance, a health physicist with a specialty in performance assessment, a radiation-health specialist, and three staff assistants (one in Lincoln, NE and two in Butte, NE). In addition, there is a vacant position for a health physicist with a specialty in nuclear engineering.

The NDEQ LLRW program includes a program manager, an environmental specialist with specialties in health physics and performance assessment, an administrative assistant specializing in document preparation and public relations, a staff assistant specializing in document control, and a secretary. The LLRW program receives occasional support from technical specialists in other NDEQ programs as short-term needs arise.

The LLRW program relies upon contractors for additional technical support and to provide additional technical specialists as needed for the SAR review (approximately 78 contractor staff). The NDEQ LLRW program has continuing contracts with the University of Nebraska-Lincoln and a number of consulting-engineering firms. The engineering firms provide their in-house expertise as well as sub-contracting for national expertise in selected technical areas. These areas include:

Hydrogeology	Economics
Surface-Water Hydrology	Seismology
Geology	Biology
Nuclear Engineering	Climatology/Meteorology
Geotechnical Engineering	Sociology
Structural Engineering	Quality Assurance
Operational/Construction	Geochemistry
Mechanical Engineering	Performance Assessment
Health Physics	Financial Assurance
Environmental Engineering	Regulatory Analysis
Materials Engineering	Project Management
Civil Engineering	

The team reviewed the documentation of qualifications and training of staff in both the NDOH and NDEQ LLRW programs. In addition, the team reviewed the documentation of qualifications and Quality Assurance (QA) training that the program requires of review managers (8) and approximately 80 technical reviewers of the SAR. Staff and contractors are all highly qualified for their responsibilities in the LLRW program, easily meeting the guidance specified in NUREG/CR-4352, "Suggested State Requirements and Criteria for a Low-Level Radioactive Waste Disposal Site Regulatory Program." The LLRW program has actively supported staff and contractor training in QA Procedures, Performance Assessment and other courses or workshops applicable to the program. The

documentation to allow tracking or reporting of the status and history of staff and contractor training are not readily accessible and are not summarized. Training documentation is required and accessible during internal audits or surveillance of the contractors that are part of the program but is not accessible outside of the context of the audit/surveillance. Formalized tracking of NDEQ and NDOH program staff training is apparently not required at the present time. The team suggests that the LLRW program assemble training documentation for individual staff and contractors and develop a consolidated training record to enable assessment of the progress of training across the entire program.

4.2.4 Technical Quality of Licensing Actions

With current program emphasis on review of the applicant's SAR and documentation of Evaluation Findings prior to preparation of the Draft Safety Evaluation Report, the IMPEP team examined the project's SAR review comments, comment tracking and reviewer qualification documentation. This involved tracing comments either through to closure resulting from subsequent SAR modifications, or as persistent open issues.

The program has a well organized QA program to govern all program activities that might affect public health and safety. This QA program enabled the team to readily review and track the SAR review process.

A total of 195 comments in the subject areas of site characterization and performance assessment were tracked. Of these, the only questions arose due to seven comments submitted by a reviewer whose Technical-Review Qualification Statement was not on file. This omission was corrected once it was brought to the attention of the program staff.

The team also reviewed a Quality Assurance Compliance Inspection Audit, performed by a LLRW audit team, of the U.S. Ecology's engineer of record for the project, Bechtel National Inc., Oak Ridge, Tennessee. This audit was selected because it examined the QA associated with performance assessment calculations. The applicant was informed of this audit on July 21, 1995. The audit took place on August 10-11, 1995 at the Bechtel National Inc. offices at Oak Ridge, Tennessee and was performed by three auditors and two technical specialists from the Nebraska LLRW program. The Quality Audit Checklist prepared prior to the audit contained 56 audit items; some were generic but many targeted directly at the applicant's program. The audit resulted in additional audit items, resulting in a total of 78 audit items. The audit resulted in 11 compliance nonconformances that were transmitted to the applicant on January 18, 1996. The applicant responded on April 23, 1996 and is in the process of resolving the nonconformances.

The team believes that the Nebraska LLRW program has a commendable QA program for auditing the applicant and for internal auditing within the Nebraska LLRW program.

4.2.5 Technical Quality of Inspections

With the program in the license-application review phase, inspections are not applicable.

4.2.6 Response to Incidents and Allegations

There were no incidents or allegations reported.

Based on the IMPEP evaluation criteria, the review team recommends that Nebraska's performance with respect to the non-common indicator, Low-Level Radioactive Waste Disposal Program, be found Satisfactory.

4.3 Sealed Source and Device Program

The review team did not review the State's sealed source and device (SS&D) evaluation even though they currently have responsibility for this area because the State has indicated that it plans to formally relinquish its SS&D authority. The State has performed only one SS&D review in the past 25 years and did not perform any SS&D evaluations during the period of review.

5.0 SUMMARY

As noted in Sections 3 and 4 above, the review team found the State's performance with each of the performance indicators to be satisfactory or satisfactory with recommendations for improvement, with two exceptions. The team found the State's performance unsatisfactory in Section 3.2, Technical Staffing and Training, and Section 4.1.2, Status and Compatibility of Regulations. A review of previous program reviews between 1986-1992 indicated similar problems were found in, staffing, inspection program, compatibility of regulations, enforcement and management control. The team observed that the State experienced weaknesses and deficiencies throughout the program during the reporting period which were compounded by the loss of three key staff members and two reorganizations. Difficulties identified during the review include: (1) a backlog of 9 core inspections; (2) 22 inspections pending supervisory review and notification of the findings to the licensee; (3) inspection reports were incomplete; (4) a backlog of 101 licensing actions; (5) no incident reporting to NRC since June 1995; (6) incomplete documentation of incident response and response to allegations; (7) regulations required for compatibility not adopted in timely fashion; and (8) no "get-well" plan. All of these factors considered collectively led the team to find that State's response to Section 3.2, Technical Staffing and Training, was unsatisfactory at the time of the review. The team found Section 4.1.2, Status and Compatibility of Regulations, unsatisfactory due to the failure to adopt regulations equivalent to 10 CFR Part 36 by July 1, 1996. However, subsequently this regulation was promulgated on October 30, 1996, with the minor exception of the applicability of a more stringent radiation protection standard to a non-existent class of licensees, the Nebraska program is currently compatible. The team found that the primary root causes for the deficiencies found in the program were directly attributable to (1) the need for management improvement to effectively assess and respond to the reduced level of performance in the Agreement State program, and (2) lack of current, written, program procedures or failure of staff to follow these procedures. Accordingly, the team recommends that the Management Review Board find the Nebraska program adequate to protect public health and safety but needs improvement, and compatible with NRC's program. Due to the significance and number of deficiencies found

in the Nebraska program that included unsatisfactory in one performance indicator, the team recommends a period of probation for a duration to be established after consultation with Nebraska radiation control program management.

Recommendations

Below is a summary list of recommendations and suggestions, as stated in earlier parts of this report, for consideration and action by the State.

1. The review team recommends that the State follow the inspection frequency for conducting inspections of reciprocity licensees contained in NRC Manual Chapter 1220, "Processing of NRC Form 241, Report of Proposed Activities in Non-Agreement States, and Inspection of Agreement State Licensees Operating Under 10 CFR Part 150.20." (Section 3.1)
2. The review team recommends that the managers responsible for the Nebraska Radioactive Materials Program establish an action plan or procedure to assure inspections are completed at the frequencies stated in the Nebraska Inspection Manual which is equal to the NRC's IMC 2800 and conduct reciprocity licensee inspections at the required frequencies stated in IMC 1220. (Section 3.1)
3. The review team recommends that the managers establish an action plan or procedure for coordinating deviations from the inspection schedule between staff and management based on the risk of license operations, past performance and need to temporarily defer the inspections to address more urgent or critical priorities. (Section 3.1)
4. The review team recommends that the managers organize a "get well" plan for rescheduling missed or deferred inspections, especially due to loss of senior staff; and establish a plan or methodology to assure initial inspections are performed within 6 months of issuance of the license in accordance with the Nebraska Inspection Manual and NRC's IMC 2800. (Section 3.1)
5. The review team recommends the incorporation of the inspection frequencies contained in NRC's IMC 2800 into the Nebraska Inspection Manual. (Section 3.1)
6. The team recommends that the qualifications of contractor personnel be tied to the contract as identified by the program manager or as accomplished by the LLRW program in NDEQ. (Section 3.2)
7. The team recommends that a written program for staff qualification, including retaining training records, be developed. (Section 3.2)
8. The team recommends that the State develop comprehensive administrative procedures, sufficient to guide the day-to-day operation of the program in the event of another loss of senior staff. The procedures should include a formal process for bringing to the attention of upper management the increase of significant backlogs

of licensing, inspection, or enforcement actions, or any other situation which increases the risk to public health and safety. Licensing procedures should include prioritization of licensing actions based upon identified factors, including health and safety significance, for new and previously received applications. (Section 3.2)

9. The team recommends that the program be observed with increased attention to the effects of the further reorganization. (Section 3.2)
10. The team recommends that a written policy or procedure should be developed for prioritizing licensing actions based upon identified factors, including health and safety significance, for new and previously received applications. (Section 3.3)
11. The team recommends that a written procedure and schedule should be developed for elimination or reduction of the backlog of existing licensing actions. (Section 3.3)
12. The review team recommends that the State consider for adoption a policy of annual supervisory accompaniments of all individuals who perform inspections for the Radioactive Materials Program. (Section 3.4)
13. The review team recommends that the State develop a plan or procedure to assure that field notes, as well as, reports, and enforcement letters are promptly reviewed, signed and dated by a supervisor within the recommended 30 day time frame for issuance of inspection findings. (Section 3.4)
14. The review team recommends that the State perform an immediate review of all contractor field notes and draft enforcement letters in order to finalize and issue the findings of the remaining 22 inspections to the licensees involved. (Section 3.4)
15. The review team recommends revising the allegations procedures to incorporate key areas, i.e. documentation of any communications with the allegor, documentation of the inspection findings, interviewing techniques, etc., identified in NRC Manual Directive 8.8, Management of Allegations. (Section 3.5)
16. The review team recommends that the staff use the draft "Handbook on Event Reporting in the Agreement States (Handbook)," published March 1995, for review and reporting of material events to NRC. (Section 3.5)
17. The review team recommends establishment of comprehensive procedures for tracking, follow up and close out of events involving the use of radioactive material covered under the Atomic Energy Act. (Section 3.5)
18. The review team recommends that the State immediately begin reporting current material events to NRC and send in information on the three events identified during the review as reportable, that were not previously reported to NRC. (Section 3.5)

19. In accordance with the State's commitment, the team recommends that Nebraska amend 180 NAC 1-012.22 to remove its applicability to waste treatment and storage facilities.
20. The team suggests that the LLRW program assemble training documentation for individual staff and contractors and develop a consolidated training record to enable assessment of the progress of training across the entire program. (Section 4.2.3)

LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	NDOH and EHPS Organization Chart
Appendix C	Nebraska Questionnaire Response
Appendix D	License File Reviews
Appendix E	Inspection File Reviews
Appendix F	Incident File Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

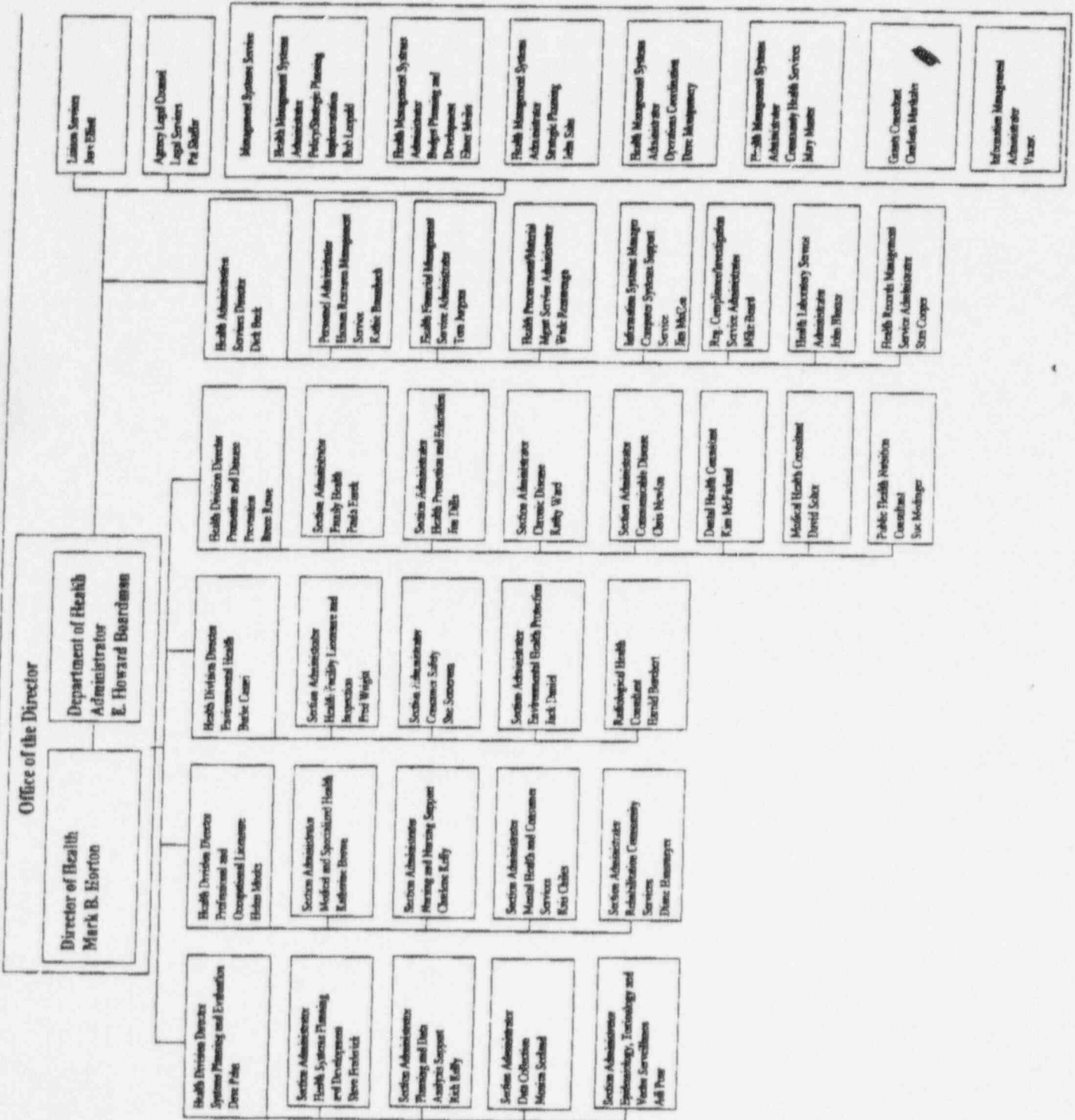
Name	Area of Responsibility
Patricia M. Larkins, OSP	Team Leader Response to Incidents and Allegations
Jenny Johansen, RI	Status of Materials Inspection Program Technical Quality of Inspections
Richard Blanton, OSP	Technical Staffing and Training Legislation and Regulations
Charles Mattson, Colorado	Technical Quality of Licensing Actions
Ralph Cady, RES	Low-Level Radioactive Waste Program

APPENDIX B

**NEBRASKA DEPARTMENT OF HEALTH
AND
ENVIRONMENTAL HEALTH PROTECTION
SECTION**

ORGANIZATION CHART

Nebraska Department of Health



ENVIRONMENTAL HEALTH PROTECTION SECTION

Jack L. Daniel, Administrator

Mary Hanneman, Admin. Asst.

Jo Ann Wagner, Admin. Asst. (Regulations)

AHERA Program

Doug Gillespie, Program Manager

Asbestos Control Program

Donald Madsen, Program Manager

Barb Eickmeier, Secretary

Robert Donahue, HIHS

Steve Schliffe, HIHS

Engineering Services Program

Subhash Jha, Program Manager

Janell Miller, Staff Asst.

Bob Lukowski, P.E.

Steve Rowell, P.E.

Larry Steele, EIT

Field Services Program

Tom Michels, Program Manager

Dawn McFarland, Staff Asst.

Tom Flodman, WSS

Daryl Guest, WSS

Rich Koenig, WSS

Ralph Naber, WSS

Roger Rhylander, WSS

Mike Wentink, WSS

Doug Woodbeck, WSS

Low Level Radioactive Waste Program

Cheryl Rogers, Program Manager

Bev Spang, Staff Asst.

John Fassell, HP

Trudy Hill, RHS

Deb Larson, Staff Asst. (Butte)

Howard Shuman, HP

Monitoring & Compliance Program

Scott Peterson, Program Manager

Laura Hardesty, WSS

Roger Lolley, ISA

Gale Stenberg, WSS

Stephanie Vap, WSS

Radioactive Materials Program

Brian Hearty, Program Manager

Joyce Davidson, HP

Jim DeFrain, HP

Bryan, Miller, HP

Joe Milone, RHS

Water Well Standards Program

Rod Tremblay, Program Manager

Pat Wilsey, Staff Asst.

Tom Christopherson, WSS

Dave Sizer, WSS

APPENDIX C

**INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM
(IMPEP) QUESTIONNAIRE**

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

QUESTIONNAIRE

Nebraska Department of Health, Nebraska Department of Environmental Quality
NDOH Radioactive Materials Program, Brian P. Hearty, Manager *BP*
NDOH Low-Level Radioactive Waste Program, Cheryl K. Rogers, Manager *CKR*
NDEQ Low-Level Radioactive Waste Program, Jay D. Ringenberg, Manager *JDR*

Reporting Period: June 25, 1994, to July 12, 1996

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 (issued 4/17/95). The list should include initial inspections that are overdue.

Licensee Name License Number License Type	Inspection Frequency (Years) Type	Due Date	Months Overdue
Stanley S. Jaeger 01-69-01 Other Services	3 Initial	03/01/89	88
Nebraska Methodist Hospital 01-07-02 HDR Afterloader	1 Routine	09/01/94	22

¹ Estimated burden per response to comply with this voluntary collection request: 60 hours. Forward comments regarding burden estimate to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0052), Office of Management and Budget, Washington, DC 20503. NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Lincoln General Hospital 02-06-03 HDR Afterloader	1 Routine	05/01/95	14
Nucletron-Oldelft Corporation 99-49-01 Other Services	3 Routine	05/01/95	14
Immanuel Medical Center 01-04-01 HDR Afterloader	1 Routine	01/01/96	6
Center for Metabolic Imaging 01-72-01 Manufacturing	1 Routine	01/01/96	6
Bergan Mercy Medical Center 01-09-02 HDR Afterloader	1 Initial	04/01/96	3
University of Nebraska Medical Center 01-50-01 Medical Institution Broad	1 Routine	04/01/96	3
Thiele Geotech, Inc. 01-84-01 Industrial Gauge	5 Initial	06/01/96	1

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.

License No. 01-69-01, Stanley S. Jaeger, expired 9/30/93 without an initial inspection having been performed. The individual has submitted a renewal application, but has not responded to a subsequent deficiency letter. The application was not deemed timely filed. If the applicant is issued a license, an initial inspection will be performed within 6 months, otherwise a termination inspection will be performed in 1996 to confirm the transfer of the dose calibrator calibration sources authorized by the license.

Nebraska Methodist Hospital, Lincoln General Hospital, and Immanuel Medical Center, were not assigned a Priority 1 when an HDR was added to each license. The licensees listed above will be inspected in 1996 and annually as described in A.I.3. below.

Center for Metabolic Imaging has requested that 01-72-01 be terminated since the operation of the cyclotron has been taken over by Syncor International Corp. under license 01-65-02, which was inspected 3/19/96. Since operations are ongoing under another license a termination inspection will not be required.

Bergan Mercy Medical Center, was authorized for an HDR in 8/95 and the license reviewer noted that an inspection should be performed within 6 months after start of HDR treatment. The licensee received their HDR in 10/95. The licensee will be inspected in 1996 and annually as described in A.I.3. below.

Nucletron-Oldelft Corporation was not assigned a Priority 3 when licensed in Nebraska. The licensee was inspected in 5/92 and assigned a 5 year inspection frequency. The licensee will be inspected in 1996 and every 3 years as described in A.I.3. below.

The University of Nebraska Medical Center was inspected during the spring semester of 1995. To provide variability in the research activities that may be directly observed during the inspection, the licensee will be inspected during the fall semester of 1996.

Thiele Geotech, Inc., will be inspected by program staff during the week of July 15-19, 1996, with NRC accompaniment.

3. Please identify individual licensees or groups of licensees the State/Region is inspecting less frequently than called for in NRC Inspection Manual Chapter 2800 (issued 4/17/95) and state the reason for the change.

High-Dose, Rate Remote Afterloader: Licensees possessing an HDR have were previously inspected on a 3 year frequency. All licenses authorizing an HDR will be assigned a Priority 1 and inspected annually.

Mobile Nuclear Medicine Service: Licensees of this type were previously inspected on a 3 year frequency. Licensees providing

mobile nuclear medicine services will be assigned a Priority 2 and be inspected every 2 years.

Instrument Calibration Services Only - Other: and Other Services:
Service licensees were previously grouped together and inspected on a 5 year frequency. All service licensees will be reviewed and assigned the proper priority and inspection frequency, either 3 or 5 years, and inspected accordingly.

Manual Chapter 2800 will be reviewed when revised and appropriate changes in the Program's inspection frequencies will be made if justified. A copy of 2800, Enclosure 1, will be placed in the Program Staff Inspection Manuals for reference.

4. How many licensees filed reciprocity notices in the reporting period?

31 licensees filed 163 reciprocity notices.

- a. Of these, how many were industrial radiography, well-logging or other users with inspection frequencies of three years or less?

20 licensees of Priority 1,2, or 3. (7 industrial radiography, 1 mobile nuclear medicine service, 7 well logging, and 5 other services)

- b. For those identified in 4a, how many reciprocity inspections were conducted?

2 licensees (industrial radiography) were inspected.

5. Other than reciprocity licensees, how many field inspections of radiographers were performed?

1 field inspection will be performed. A field site (which the licensee hopes to add as a permanent radiographic facility) will be inspected on 6/26/96 by program staff with NRC accompaniment. Of the other 3 industrial radiographers licensed in Nebraska, 2 are fixed facility, and 1 has not used their sources since 5/27/94.

6. 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 Staffing and Training

7. 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:

NAME	RADIOACTIVE MATERIALS PROGRAM POSITION	AREA OF EFFORT
Brian Hearty	Program Manager	Program Administration - 40% Licensing/Compliance - 30% Regulations - 10% Emergency Response - 10%
Jim DeFrain	Health Physicist I	Licensing/Compliance - 95% Emergency Response - 5%
Vacant	Health Physicist I	Licensing/Compliance - 95% Emergency Response - 5%
Joyce Davidson	Health Physicist I	Regulations - 70% Licensing/Compliance - 25% Emergency Response - 5%
Cheryl Rogers	Program Manager LLRW	Licensing/Compliance - As Needed up 20%

Howard Shuman	Health Physicist II LLRW	Compliance - As Needed up to 20%
Harold Borchert	Radiological Health Consultant	Regulations - As Needed Licensing/Compliance - As Needed
Stan A. Huber Consultants, Inc.	Contract Consultant	Compliance - Performance of 27 inspections from 1/1/96 to 6/30/96.

Brian Hearty, Cheryl Rogers, and Joyce Davidson have been identified as senior personnel for reviewing work in materials licensing. Brian Hearty, Cheryl Rogers, and Howard Shuman have been identified as senior personnel for inspection accompaniments of junior personnel.

8. 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.

Jim DeFrain, was hired as a Health Physicist I in the Radioactive Materials Program on July 20, 1995. Jim has MPA in Public Administration and has been with the Department of Health for 13 years. He has worked as a Radiological Health Specialist I and Health Physicist I in the X-ray Program, and a Radiological Health Specialist II and Health Physicist I in the Emergency Response and Environmental Surveillance Programs. Jim has attended the following training courses which directly relate to the Radioactive Materials Program: 5-Week Applied Health Physics, Radiological Emergency Response Operations, Transportation of Radioactive Materials, Inspection Procedures, Licensing Procedures, Medical Uses of Radionuclides, Safety Aspects of Industrial Radiography, Health Physics Technology, and Environmental Monitoring for Radioactive Materials.

The vacant Health Physicist I will be hired in 6/96 and training and experience will be available at the time of the IMPEP review.

9. Please list all professional staff who have not yet met the qualification requirements of license reviewer/materials inspection staff (for NRC, Inspection Manual Chapters 1245 and 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.

The qualifications requirements for Radioactive Materials Program license reviewers and inspectors consists of internal training, formal coursework, and on-the-job training.

The internal training consists of review of the program's Inspection and Enforcement Manuals, review of all appropriate Nebraska and Federal Regulations and regulatory guides, and review of program policies.

The formal coursework required has included the following NRC and FEMA sponsored courses: Radiological Emergency Response Operations, Applied Health Physics, Licensing Procedures, Inspection Procedures, Medical Uses of Radionuclides, Transportation of Radioactive Material, Health Physics Engineering, Safety Aspects of Industrial Radiography.

As more NRC sponsored courses become available to Agreement State Inspectors, the above core coursework may be expanded to include coursework that would be beneficial to the Program. Courses that program staff have found beneficial include: Health Physics Technology, Inspecting for Performance, Teletherapy and Brachytherapy, Irradiator Technology, Safety Aspects of Well Logging, and Environmental Monitoring for Radioactivity. The Diagnostic and Therapeutic Nuclear Medicine Course is also very appropriate for program staff.

The on-the-job training for materials licensing consists of the direct supervision of the trainee in the review and evaluation of increasingly complex licensing actions. On-the-job training for inspections consists of the trainee accompanying senior staff on various inspections, and then the trainee acting as lead inspector while accompanied by senior staff on increasingly complex inspections.

Brian Hearty has not yet attended the Safety Aspects of Industrial Radiography Course and plans to attend during 1996.

Jim DeFrain has not yet attended the Health Physics Engineering Course and has submitted an application to attend the 8/12-16/96 offering. Jim is continuing to review increasingly complex licensing actions under supervision. Jim has accompanied on several inspections, and has started to act lead inspector while accompanied by senior personnel.

The vacant Health Physicist I will need to receive additional training dependent on the qualifications possessed at the time of hire.

10. Please identify the technical staff who left the RCP/Regional DNMS program during this period.

NAME	POSITION	REASON FOR LEAVING
Julie Peterson	Health Physicist II	Accepted position as HP for U.S. Army Corps of Engineers on 6/23/95.
Michael Beard	Health Physicist I	Accepted a position as NDOH Investigations Section Administrator on about 6/1/95. Subsequently, accepted a position as RSO at an irradiator in Nebraska.

III. Technical Quality of Licensing Actions

11. Please identify any major, unusual, or complex licenses which were issued, received a major amendment, terminated or renewed in this period.

Creighton University, 01-82-01: Combined 11 educational and 5 medical licenses into the broad scope license.

Bergan Mercy Medical Center, 01-09-02: Received authorization for an HDR, a PET Scanner to be used with a Rb-82/Sr-82 infusion system, and a redesign of the nuclear medicine area.

Lincoln General Hospital, 02-06-03, and St. Elizabeth Community Health Center, 02-35-01: The licenses were transferred from the radiology group to the facilities, the 02-06-03 license combined a separate nuclear medicine and an HDR (brachytherapy) license.

Bryan Enterprises, : Combined two large mobile nuclear medicine services under one license. See also 13. below.

EndoTech, Inc., 01-76-01: This research and development licensee's requests resulted in the submission of financial surety for site reclamation, and a lowering of possession limits to avoid an emergency plan which was now being requested by the program.

12. Please identify any new or amended licenses added or removed from the list of licensees requiring emergency plans?

N/A. Currently, no licensees have been required to submit an emergency plan.

13. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.

Nebraska regulations require that an authorized user or on-site physician (40 hrs training in radiation safety) be at the facility during the performance of mobile nuclear medicine procedures. A policy was developed which allows a mobile nuclear medicine licensee to request an exemption allowing on-site physicians to be at their office, but available by phone and able to respond within 30 minutes in an emergency.

An exemption was granted to Bryan Enterprises, 02-39-01, to allow delivery of licensed material to a client's address of use for receipt by the licensee's staff at the mobile van. The above exemptions allowed diagnostic health care services in parts of rural Nebraska that would not have been feasible before.

A variance in licensing practice was recently discovered regarding financial assurance for decommissioning with regards to the 3 commercial irradiator licensees in Nebraska. At the time the rule was adopted it was unclear if any Nebraska licensees would be required to submit a decommissioning funding plan. It is now clear the irradiator licensees are required to submit a funding plan for

\$75,000. The licensees will be notified and the plans reviewed upon receipt.

14. What, if any, changes were made in your written licensing procedures (new procedures, updates, policy memoranda, etc.) during the reporting period?

The standard license conditions have been revised.

Several policy memorandum have been superseded by implementation of the 5/31/94 revision of the regulations.

The licensing procedure manual, review guidance, and checklists have not been updated to reflect current requirements. Currently, materials licensing reviewers use updated Regulatory Guides, NRC checklists, and NRC deficiency paragraphs for guidance. The generation of updated procedures, guidance, and checklists will be completed as soon as possible to ensure thorough and timely review of licensing actions.

15. For NRC Regions, identify by licensee name, license number and type, any renewal applications that have been pending for one year or more.

N/A

IV. Technical Quality of Inspections

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

An Inspection Manual was developed and implemented in late 1994. An Enforcement Manual containing boilerplate violations was developed and authorized for use as guidance in 2/95. The first use of the Enforcement Manual violations for actual drafting of a Notice of Violation has been by the contract inspector in 1996.

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

Supervisor	Inspector	License Category	Date
Bill Schultz, contract consultant.	Brian Hearty	Medical Private Practice	09/02/94
Bill Schultz, contract consultant.	Julie Peterson	Medical Institution	09/01/94
Bill Schultz, contract consultant.	Michael Beard	Industrial Radiography - Fixed	08/31/94

- 18 Describe internal procedures for conducting supervisory accompaniments of inspectors in the field. If supervisory accompaniments were documented, please provide copies of the documentation for each accompaniment.

Currently, the number and type of supervisory accompaniments by senior program staff is not defined by program procedure and they have not been documented in the past. A consultant was hired to develop the Inspection and Enforcement Manuals, and part of the contract was to review the program staff by accompaniment. Copies of the reports submitted for Julie Peterson and Brian Hearty are attached.

19. Describe or provide an update on your instrumentation and methods of calibration. Are all instruments properly calibrated at the present time?

Program Maintained Detection and Measurement Instrumentation:

Ludlum Model 5, dual internal G-M detectors.

Ludlum Model 14C, internal G-M and external 44-6 G-M detector.

Ludlum Model 12S, internal NaI detector, μ R/hr meter.

The above instruments are calibrated annually by the manufacturer and are in calibration at this time.

Eberline PAC-4S, AC-3-7 ZnS detector.

The above instrument was calibrated by the manufacturer in 8/93 and is currently not calibrated for use.

Available Detection and Measurement Instrumentation:

Ludlum Model 3, 44-38 energy compensated G-M detector and 44-3 thin crystal NaI detector.

The above instrument is calibrated annually by the manufacturer and is in calibration at this time.

Eberline RO-2, ionization chamber.

Eberline E-520, HP-210 or HP-210T G-M probe.

The above instruments are calibrated annually by the manufacturer or a calibration service and are in calibration at this time.

Confirmatory wipe tests and gamma isotopic measurements are performed by the Nebraska Department of Health Lab using various instruments.

V. Responses to Incidents and Allegations

20. Please provide a list of the most significant incidents (i.e., medical misadministration, overexposures, lost and abandoned sources, incidents requiring 24 hour or less notification, etc.) that occurred in the Region/State during the review period. For Agreement States, information included in previous submittals to NRC need not be repeated. The list should be in the following format:

Licensee Name	License Number	Date of Incident/ Report	Type of Incident
Nebraska Civil Defense Agency	02-02-02	Incident 01/93 (Assumed) Reported 08/07/95	Licensee discovered a missing Co-60 source ($\approx 180 \mu\text{Ci}$ on 1/93) which was most likely disposed of in the landfill. The NRC agreement states officer was notified by telephone on 08/07/95.

Sherwood Medical	07-02-01	Incident 09/09/95 Reported 09/12/95	Irradiator licensee performing weekly maintenance check found the low water switch not functioning as intended. The sources were raised without correcting the problem or notifying the Agency as required by license condition. the switch functioned properly when retested 09/11/95. The incident was not reported to NRC since 10 CFR 36 would allow the licensee to repair the switch without undue delay.
Sherwood Medical	07-02-01	Incident 11/30/95 Reported 12/1/95	An employee of the licensee called to allege a possible violation involving barrier doors malfunction. An inspection of the licensee confirmed that barrier doors were not functioning as intended when the licensee changed operation to index mode. It was determined by observation and interview that the barrier door or a tote was blocking the entrance at all times during the incident. The irradiator manufacturer checked and repaired the program logic. This incident was not reported to NRC.

21. 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?

The equipment problems listed in A.V.20. above were reported by the licensee to the manufacturer.

- a. For States, was timely notification made to the Office of State Programs?
For Regions, was an appropriate and timely PN generated?

The OSP was not notified of any equipment or source failures, or deficient procedures.

An attempt was made to use the interim Nuclear Materials Events Database and Report Preparation Program to generate reports of events. There were several problems with the implementation, and a decision to wait for the final Microsoft Access version of NMED was made.

22. 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.

No.

23. In the period covered by this review, were there any cases involving possible wrongdoing that were reviewed or are presently undergoing review? If so, please describe the circumstances for each case.

No.

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

A procedure for response to allegations was drafted and implemented as part of the new Inspection Manual.

- a. For Agreement States, please identify any allegations referred to your program by the NRC that have not been closed.

N/A

VI. General

25. 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.

The review completed June 24, 1994, indicated that the Nebraska Program met the guidelines in all 30 indicators, and no recommendations or comments were identified.

26. 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.

A strength of the Nebraska Radiation Control Program is its ability to obtain sufficient resources, such as qualified personnel, either internally or through contractual arrangements, to ensure that program activities are carried out at an adequate level to protect the public health and safety. The contract for inspection services and an increase in the allocation of time from LLRW Program Staff allowed the materials licensing backlog to be addressed during the staff shortage outlined in A.II.10. above. However, it is a weakness of the Program that the frequency at which it is necessary to obtain outside resources has not decreased. A weakness of the Radioactive Materials Program is the time taken to review changes in NRC procedure for appropriateness to the program, such as the inspection frequencies in Inspection Manual Chapter 2800. An example of this is the overdue inspections of HDR licensees as outlined in A.I.3.

B. NON-COMMON PERFORMANCE INDICATORS

I. Regulations and Legal Authority

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

Radiation Control Act 71-3501 to 71-3520

Nebraska Disaster and Civil Defense Act, as amended 81-829.36 to 81-829.74.
(This Act was amended this past legislative session and will become the Emergency Management Act on 07/18/96).

Emergency, Governor, Civil Defense Assumption of Control of State Communications System 81-1120.25

Administrative Procedures Act 84-920

Low-Level Radioactive Waste Disposal Act 81-1578, (This Act was amended this past legislative session and will become effective 07/19/96.).

Nebraska Partnership for Health and Human Services Act LB1044, Effective 01/01/97.

28. Are your regulations subject to a "Sunset" or equivalent law? If so, explain and include the next expiration date for your regulations.

No.

29. Please complete the enclosed table based on NRC chronology of amendments. Identify those that have not been adopted by the State, explain why they were not adopted, and discuss any actions being taken to adopt them.
30. 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.

Program staff drafts changes in regulations by using the Conference of Radiation Control Program Director's Suggested State Regulations, NRC Regulations, FDA, EPA, and DOT regulations. The drafts are then reviewed by the appropriate Program Manager, Health Department Legal staff, and the Nebraska Radiation Advisory Council. The Council may then give approval to go to Public Hearing. The drafts are then sent to the Governor's Policy Research Office (PRO) for their approval to go to Public Hearing. Notice of Public Hearing is published (IN A NEWSPAPER WITH WIDE CIRCULATION THROUGHOUT NEBRASKA) at least 30-days prior [THIS IS LAW] (SOMETIMES MORE TIME IS GIVEN DEPENDING ON THE PROPOSED DRAFTS).

A copy of the Public Hearing notice is filed with the Nebraska Secretary of State's Office and copies of the Public Hearing notice are sent out to all licensees and registrants in Nebraska in addition to other interested parties. Copies are also sent to the Nebraska Executive Board of the Legislature.

Copies of the drafts are provided to all licensees and anyone who requests a copy. At this time all Federal Agencies are also sent copies of the Public Hearing Notice and a copy of the proposed draft regulations.

After Public Hearing comments are reviewed and any necessary changes are made, the final draft goes to the Attorney General's Office for their review, comments and approval. (USUALLY TAKES 30-DAYS, SOMETIMES LESS.)

Upon approval by the Attorney General it then goes back to the Governor's Office (PRO) for approval (USUALLY TAKES 30-DAYS SOMETIMES LESS.)

Upon Governor's approval and signature it is filed with the Nebraska Secretary of State's office. (EFFECTIVE DATE IS 5-DAYS LATER).

Printing and distribution takes about 30 additional days.

II. Low-Level Waste Program

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

Status of Materials Inspection Program - A.I.1-3, A.I.6

Technical Staffing and Training - A.II.7-10

Technical Quality of Licensing Actions - A.III.11, A.III.13-14

Technical Quality of Inspections - A.IV.16-19

Responses to Incidents and Allegations - A.V.20-23

The Nebraska Low-Level Radioactive Waste Program (LLRWP) is a joint effort by the Nebraska Department of Health (NDOH) and the Nebraska Department of Environmental Quality (NDEQ). The application for construction, operation and closure of the waste disposal facility is under review by the LLRWP; therefore, responses to the following questions are not appropriate:

Status of Materials Inspection Program - A.I.1-3, A.I.6

Technical Quality of Licensing Actions - A.III.11, A.III.13

Technical Quality of Inspections - A.IV.16-18

Responses to Incidents and Allegations - A.V.20-23

The responses to the remaining questions follow:

II. Technical Staffing and Training

7. 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,

LLRW, 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:

NAME	LLRW PROGRAM POSITION	AREA OF EFFORT
J. D. Ringenberg	NDEQ LLRW Program Manager	LLRW program administration - 100% Monitors work of LLRWP personnel.
C.K. Rogers	NDOH LLRW Program Manager	LLRW program administration- 85% NDOH, ER-10%, NDOH Environmental- 5% Monitors work of LLRWP personnel*
H. Shuman	NDOH HP II - Environmental Surveillance.	LLRW program (application review and RESP) - 90% NDOH ER - 10%* Reviews work of LLRWP personnel
J. Fassell	NDOH HP II - Performance Assessment	LLRW program (application review and IPA) - 90% NDOH ER - 10%
G. Allen	NDEQ Environmental Specialist	LLRW program - 100% Reviews work of LLRWP personnel.
C. Felix	NDEQ Administrative Assistant II	LLRW program - 100% Reviews work of LLRWP personnel.
78 Contractors	Expertise in various areas Have been or are involved in the review of the application.	Names, resumes and areas of effort are on file and are available to the NRC.
Vacant	NDOH HP II - Nuclear Engineer	LLRW program (source term, waste form etc.) - 100%

In addition to the foregoing the current LLRWP staff includes one NDEQ Staff Assistant II, one NDOH Secretary II, one NDEQ Secretary II, and one NDOH Staff Assistant (part time).

8. 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.

John Fassell joined the LLRW program in February 1996. He has a B.S. in Geology (minor-Geochemistry) and a MS in Atmospheric Sciences (Specializing in Space Physics) and completed the U.S. Air Force Institute of Technology Basic Meteorology Program. He is a Registered Radiation Protection Technologist by the NRRPT. Courses that he has completed follow:

NRC

Transportation of Radioactive Materials Course (1996)

FEMA

Radiological Emergency Planners Course (1994)

Radiological Trainer III Train the Trainer) Course (1995)

Exercise Evaluators Course (1994)

Ingestion Pathway Course (1993)

Radiological Emergency Response Operations Course (1993)

SCDA/FEMA

Radiological Monitor Course (1993)

Radiological Responder Team Course (1993)

Radiological Officer Course (1993)

Radiological Monitor Instructor Course (1995)

Instructional Techniques Course (1995)

USDA

Agricultural Pathway Course (1993)

EPA

EPA-400 Instructional Workshop (1993)

Radon Measurement Proficiency Course

Employment History

4/1/95 to 3/1/96 NDOH Inspector X-ray Section

1/4/93 to 4/1/95 **NDOH HP Section Chief for the Emergency Response, Standards, Environmental Surveillance and Radon Section.**

1983 to 1993 **USAF Weather Officer serving in St Louis, MO, Okinawa, Japan and Omaha, NE. Primary function was problem solving in electronics, physics and environmental applications.**

9. Please list all professional staff who have not yet met the qualification requirements of license reviewer/materials inspection staff (for NRC, Inspection Manual Chapters 1245 and 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.

The review of the application for license is generally performed by consultants. There are 8 Review Managers assigned to specific technical areas of the application. Each Review Manager has several Technical Reviewers with expertise in specific areas reporting to him. The requirements for qualification as a Review Manager or as a Technical Reviewer are specified in LLRW Program Licensing Procedure LP-7.

10. Please identify the technical staff who left the RCP/Regional DNMS program during this period.

NAME	POSITION	REASON FOR LEAVING
Asish Banerjee	NDOH HP II Radiological Analyst	Transferred to NDOH X-Ray Program on 12/1/95.
Beth Kernes-Krause	NDOH HP II Nuclear Engineer	Accepted a position as a Nuclear Engineer at Cooper NPS on 10/1/94.
Charles Johnson	NDEQ Environmental Engineer	Retired 2/28/94 and became a part-time consultant to the LLRW Program.

III. Technical Quality of Licensing Actions

11. Please identify any major, unusual, or complex licenses which were issued, received a major amendment, terminated or renewed in this period.

The application review process has not progressed to the point where this question is appropriate.

13. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.

The application review process has not progressed to the point where this question is appropriate.

14. What, if any, changes were made in your written licensing procedures (new procedures, updates, policy memoranda, etc.) during the reporting period?

Changes, Revisions and Additions to the Nebraska's LLRW Program's Licensing Program Plan Procedures from June 1994 to July 1996			
Section or Procedure	Title	Revision Number	Date of Revision
Section 3	Review of the Safety analysis Report & Preparation of Safety Evaluation Report	1	06/16/95
Section 4	Review of Environmental Report & Preparation of the Environmental Impact Analysis	2	06/30/95
Section 5	Preparation & Issuance or Denial of the License	1	07/15/94
Section 7	Non-Radiological Environmental Surveillance Program	1	06/24/94
		2	03/03/95
LP-5	Public Hearings	0	10/21/94
LP-8	Technical Review of the Safety Analysis Report	4	06/24/94
		5	06/16/95
LP-11	Assembly and Availability of the Draft Safety Evaluation Report	2	06/20/95
LP-15	Technical Review of the Environmental Report	4	06/24/94
		5	06/30/95
LP-17	Preparation & Distribution of the Draft Environmental Impact Analysis	2	06/20/95

LP-19	Notification of Decision to Issue Draft License	0	07/15/94
LP-20	Preparation of Draft License	1	07/15/94
LP-22	Approval of LLRW Facility License amendments	0	07/15/94
LP-24	Notice of License Denial	0	07/15/94
LP-27	Changes Other than License Amendments	0	07/15/94
LP-36	Technical Review Comment Tracking & Status	1	06/24/94
LP-58	Environmental Data Analysis	0	03/03/95
LP-59	Sampling Plan Preparation	0 1	06/24/94 03/03/95
LP-60	Health and Safety Plan Preparation	0	06/24/94
LP-61	Environmental Data Management	0	03/03/95

IV. Technical Quality of Inspections

19. Describe or provide an update on your instrumentation and methods of calibration. Are all instruments properly calibrated at the present time?

The following fixed and portable instruments are currently in use by the LLRWP:

FIXED

Genie PC Gamma Spectroscopy System

Calibration procedure - NDOH-RAP-SOP-PR-17 Operation of the Genie PC Gamma Spectroscopy System

References: Canberra Genie PC Users Manual

ANSI N42.12-1980

ANSI N42.14-1991

ANSI N323-1978

Canberra Model 2404 Alpha/Beta System

Calibration procedure - NDOH-RAP-SOP-PR-21 Operation of the Canberra Model 2404 Alpha/Beta System

References: Canberra Model 2400 Alpha/Beta System User's Manual
Model S394 Alpha/Beta/Gamma Control Software User's Manual
ANSI N323-1978

Packard 2500 TR/AB Liquid Scintillation Analyzer

Calibration procedure- NDOH-RAP-SOP-06 Determination of Tritium in Water
References: Packard 2500 Tri-Carb TR/AB Operation and Reference Manual
ANSI N42-15-1990

PORTABLE

- Six Radeco Constant Flow (K-Flow) Air Sampler
Calibration procedure - NDOH-RESPP-09 Radiological Environmental Monitoring of Air
References: SAIC Radeco Operation and Maintenance Manual-
Air Flow Calibrator
ANSI N13.1-1969
- Two Eberline Model ESP-2 portable Survey Meter
Calibrated by Commercial Vendor
- One Ludlum Model 177 Alarm Ratemeter
Calibrated by Commercial Vendor
- One Alnor Type 8500 Thermo-Anemometer
Calibrated by Commercial Vendor

CALIBRATION

All of the instruments are properly calibrated.

TABLE FOR QUESTION 29.

10 CFR RULE	DATE DUE	DATE ADOPTED	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Any amendment due prior to 1991. Identify each regulation (refer to the Chronology of Amendments)				
Decommissioning; Parts 30, 40, 70	7/27/91	5/30/94		
Emergency Planning; Parts 30, 40, 70	4/7/93	5/30/94		
Standards for Protection Against Radiation; Part 20	1/1/94	5/30/94		
Safety Requirements for Radiographic Equipment; Part 34	1/10/94	5/30/94		
Notification of Incidents; Parts 20, 30, 31, 34, 39, 40, 70	10/15/94	5/30/94		
Quality Management Program and Misadministrations; Part 35	1/27/95		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997 pending any NRC changes in compatibility or enforcement.	1/97

10 CFR RULE	DATE DUE	DATE ADOPTED	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Licensing and Radiation Safety Requirements for Irradiators; Part 36	7/1/96		IN PROCESS: Draft copy went to the Nebraska Radiation Advisory Council for their approval to go to public hearing (June 7, 1996). Draft to Governor's Policy Research Office (PRO) week of (June 17, 1996) to ask for approval to go to Public Hearing. Upon okay from the PRO, a public hearing will be set up (August 1996). Then on to the Attorney General's Office for his approval (September 1996) and back to the Governor for his approval (October 1996). Publication and out to licensees (November 1996).	11/96
Definition of Land Disposal and Waste Site QA Program; Part 61	7/22/96	NDOH 5/30/94 NDEQ 6/26/94		
Decommissioning Recordkeeping: Documentation Additions; Parts 30, 40, 70	10/25/96	5/30/94		
Self-Guarantee as an Additional Financial Mechanism; Parts 30, 40, 70	1/28/97		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Uranium Mill Tailings: Conforming to EPA Standards; Part 40	7/1/97	N/A	Nebraska relinquished this part of the Agreement to the NRC.	

10 CFR RULE	DATE DUE	DATE ADOPTED	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Timeliness in Decommissioning Parts 30, 40, 70	8/15/97		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use; Parts 30, 32, 35	1/1/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Frequency of Medical Examinations for Use of Respiratory Protection Equipment	3/13/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Low-Level Waste Shipment Manifest Information and Reporting	3/1/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Performance Requirements for Radiography Equipment	6/30/98	5/30/94		

10 CFR RULE	DATE DUE	DATE ADOPTED	OR	
			CURRENT STATUS	EXPECTED ADOPTION
Radiation Protection Requirements: Amended Definitions and Criteria	8/14/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Clarification of Decommissioning Funding Requirements	11/24/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
10 CFR Part 71: Compatibility with the International Atomic Energy Agency	4/1/99		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97
Medical Administration of Radiation and Radioactive Materials.	10/20/98		Draft copy to the Nebraska Radiation Advisory Council (Meeting September 6, 1996) for their approval to go to public hearing (October 1996) and adoption in January 1997.	1/97

APPENDIX D

LICENSE FILE REVIEWS

File No: 1

Licensee: University of Nebraska at Omaha

Location: Omaha, NE

License Type: R & D

Date Amendment Issued: 1/17/96

License No: 01-48-01

Amendment: 9

Reviewer: JD

Comments:

- a) Amendments are issued to include only the items which have been changed for that amendment and are not a rewrite of the entire document. The expiration date of the license is only included on the complete rewrite which was Amendment No. 5 issued 11/15/90. The use of computerized standard license formats for quicker processing, and for clarity both for the licensee and the Agency, was discussed with staff.
- b) A short form renewal was authorized by Brian Hearty since the licensee had stated there were no changes in the radioactive materials program since the previous renewal. The calibration procedure for s/m had changed since the previous renewal.

File No: 2

Licensee: University of Nebraska, Biology

Location: Omaha, NE

License Type: R & D

Date Amendment Issued: 6/7/96

License No: 01-48-02

Amendment: 5

Reviewer: JD

Comments:

- a) A rewritten Radiation Safety Manual was submitted with the application, but was not included in the Amendment No. 5. It was still "pending" at the time of this inspection.
- b) The previous inspection was completed on 4/13/93.

File No: 3

Licensee: Maxim Technologies

Location: Omaha, NE

License Type: Industrial Radiography

Dates Amendments Issued: 9/26/95 (renewal); 1/11/96 (amendment)

License No: 01-22-01

Amendment: 21 and 22

Reviewer: BH

Comments:

- a) The use condition allows use at temporary job sites of the licensee anywhere in Nebraska where the Agency maintains jurisdiction for regulating the use of radioactive materials.
- b) There was no "reciprocal recognition of license" condition in the license. This was discussed with staff.
- c) Amendment 22 was issued to delete Tech/Ops Model A-424-18, because of the implementation of the IR equipment regulations.

File No: 4

Licensee: EndoTech, Inc.

Location: Spokane, WA

License Type: R & D

Dates Amendments Issued: 6/12/96

License No: 01-76-01

Amendment: 5

Reviewer: BH

Comments:

- a) A "line of credit" had been implemented for the company based upon 2 years rent for their facility. The 5/29/96 letter did not appear adequate in terms of enforceability or retrievability by the Agency.
- b) The place of use authorized on the Amendment 4 (previous to the IMPEP inspection) allowed use at Veterans Administration Hospital in Omaha, Nebraska, but this was recognized as inappropriate and was removed by Brian Hearty.
- c) The request to "reactivate" the license was received on 9/8/94, a 15 item RFI was sent by the Agency, a response was received from the licensee on 3/8/96, and an additional 6 item RFI was sent on 3/29/96.
- d) License includes a special condition for emergency contact when neither the RSO nor an authorized user is available.
- e) Amendments issued only include the items modified.

File No: 5

Licensee: Bryan Enterprises

Location: Lincoln, NE

License Type: Mobile Nuclear Medicine

Date Amendment Issued: 2 (7/20/94); 3 (9/16/94); 4 (10/12/94); 5 (4/18/95); 6 (5/16/95); 7 (6/26/95); 8 (12/12/95); 9 (4/19/96); 10 (5/14/96)

License No: 02-39-01

Amendment: 2 through 10

Reviewer: BH (9/10)

Comments:

- a) A computerized data base of physicians is available to the Agency to verify State licensure.
- b) A letter was included in file regarding the Agency and the Advisory Committee developing a program for "on-site physicians" when an authorized user could not be available. Allowed nuclear medicine in remote parts of Nebraska.
- c) The 3/9/95 inspection included 2 items of non-compliance: Unauthorized user, and shipping papers not available.
- d) Amendments issued only included the items modified. The expiration date, 11/30/98, was included only on Amendment 8.
- e) The "on-site physician" authorization changed from Condition 12.S, 19, to 13 from amendment to amendment.

File No: 6

Licensee: Corning Clinical Laboratories

Location: Lincoln, NE

31 License Type: Laboratory

HBorchert; 30, signed by CRogers; 31, JDavidson.

Date Amendments Issued: 29 (3/10/95); 30 (2/2/96); 31 (2/7/96)

License No: 02-08-01

Amendments: 29, 30, and

Reviewer: 29, signed by

- a) The license expired on 6/30/96; no renewal or timely filed letter was available in the file.
- b) It was not possible to determine responsibility for this licensee and St. Elizabeth Community Health Center (02-35-01) which is licensed for same materials, with a different location within the same building. This was discussed with staff, and a note was made to review that in the renewal application.
- c) The use locations were identified as "locations designated in the applications dated 5/23/91 and 5/4/92."
- d) An inspection was completed on 2/7/96, with field notes in the file but not a completed report. Four items were cited.

File No: 7

Licensee: Harris Laboratories

Location: Lincoln, NE

License Type: Gas Chromatograph

Date Amendments Issued: Renewal Applic. Rec'd 2/27/95; not yet completed.

License No: 02-10-01

Amendment: 20

Reviewer: BH

- a) Amendment request submitted 12/14/94; renewal application submitted 2/27/95; timely filed letter issued by Agency on 2/27/95; A 7 item RFI letter written on 2/15/96.

File No: 8

Licensee: Harris Laboratories

Location: Lincoln, NE

License Type: R & D

Date Amendment Issued: Pending

License No: 02-10-02

Amendment: 15

Reviewer: BH (RFI)

- a) License expiration was extended to 11/30/94 due to delays in shipping new regulations to licensees.

File No: 9

Licensee: Omni Engineering, Inc.

Location: Omaha, NE

License Type: Moisture/Density Gauge

Date License Issued: 11/17/95

License No: 01-83-01

Amendment: New License

Reviewer: BH

- a) A reciprocal recognition condition was not used in the license.
- b) The standard license condition requires the attendance at a manufacturers training course. This could be changed to include "or a course in the safe use and handling of portable gauges which has been accepted by the NRC or an Agreement State."

File No: 10

Licensee: Thiele Geotech, Inc.

Location: Omaha, NE

1(Corr.)

License Type: Moisture/Density Gauge

Date License Issued: New (11/15/95); 1 (3/21/96); 1 (Corr.) (3/27/96)

License No: 01-84-01

Amendment: New, 1,

Reviewer: JD

- a) A documented telephone call indicated that a Troxler Alert Detector would be worn and a description of storage location and security, which may not be inspectable.
- b) There were no limits on the number of gauges which were authorized, making it difficult for license reviewers to determine compliance with 004.14 and 004.15 prior to issuance of the new license.
- c) No close-out of a previous facility was included in the file.
- d) A new location was requested on Amendment 1, but was not included in the licensed location of use. This was corrected in Amendment 1 (Corr.).
- e) There was no reciprocal recognition condition in the license.
- f) In this file and others, "yellow stickys" were used to include information that should have been part of the permanent record.

File No: 11

Licensee: Bergan Mercy Medical Center

Location: Omaha, NE

License Type: Medical

87)

Date License Issued: 85 (2/6/95); 86 (8/30/95); 87 (1/26/96)

License No: 01-09-02

Amendment: 85, 86, 87

Reviewer: JP (85), BH (86,

- a) License expired 2/29/96; renewal received 1/31/96, and TF letter sent 2/1/96. On 2/1/96, 2/6/96, and 3/7/96 requests were received to change information received on the renewal application. The renewal is pending.
- b) License Condition 15.A. in Amendment 85 (tie down) included "A. The previous license applications which certified qualifications of authorized users." Not inspectable.
- c) In writing amendments which were not complete rewrites, the tie down was Condition 15, while there were 21 Conditions.

File No: 12

Licensee: Creighton University

Location: Omaha, NE

License Type: Broad

Date License Issued: New (3/17/95); 1 (4/27/95)

License No: 01-82-01

Amendment: New, 1

Reviewer: JP

- a) Authorization procedures for physicians, podiatrists, and dentists were identified by a license condition. Authorizations for non-medical users were included in the tie down.
- b) An official higher than the RSO should sign the application for a broad license.
- c) The chairman of the RSC should be identified on the license. Membership of the RSC should be included in the license file.
- d) This license combined 16 separate licenses into a broad license.
- e) On this license and others, reviewers had made notes and crossed out items.

APPENDIX E

INSPECTION FILE REVIEWS

File No.: 1

Licensee: Immanuel Medical Center

Location: Omaha, Nebraska

License Type: Nuclear Medicine/Brachytherapy

Inspection Date: 12/7,28/94

License No: 01-04-01

Inspection Type: Routine, Unannounced

Priority: II (3 years)

Inspectors: JP, MB

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Enforcement letter issued and signed 1/27/95 by program manager, however, field notes report was not approved and signed by supervisor until 3/30/95, approximately 60 days after the enforcement letter issued.
- c) Field notes report indicates that inspection conducted in sufficient depth and scope to support findings of 3 violations.

File No.: 2

Licensee: Corning Clinical Labs

Location: Lincoln, Nebraska

License Type: Irradiator Self-Contained

Inspection Date: 2/7/96

License No: 02-08-02

Inspection Type: Routine Announced

Priority: II

Inspector: Contractor

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Field notes report not approved and signed by supervisor as of 7/19/96.
- c) Draft enforcement letter dated 2/23/96 not reviewed and signed by supervisor or sent to licensee as of 7/19/96.
- d) Repeat violations identified in field notes report not indicated as such in draft enforcement letter.
- e) Field notes report does not contain all administrative information required on page one such as: inspection report no., next inspection date and whether next inspection is at a normal, reduced or extended frequency, etc.
- f) No documentation provided in field notes report that ancillary workers such as secretarial, housekeeping or security personnel were interviewed as to training received from licensee per NE regulation 10.03 (equivalent to NRC 10 CFR 19.12) during the inspection.

File No.: 3

Licensee: Mary Laning Memorial Hospital

Location: Hastings, Nebraska

License Type: Teletherapy

Inspection Date: 11/21/94

License No: 14-03-02

Inspection Type: Routine Unannounced

Priority: II

Inspectors: MB, BH

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) No documentation in field notes report to support close-out violations found in previous inspection on 5/9/90. Enforcement letter dated 12/20/94 states that there were no further questions on corrective actions taken on findings from previous inspection.
- c) No documentation in field notes report that RSC minutes and committee composition reviewed and that exit meeting was held at the appropriate management level.
- d) Field notes report does not contain all administrative information required on page one such as: inspection report no., license no., licensee (name and address), licensee contact, telephone no., priority, date of last inspection, date of this inspection, type of inspection, summary of findings and action, next inspection date and whether next inspection is at a normal, reduced or extended frequency, signature and date the inspector signed and signature and date supervisor approved the report.

File No.: 4

Licensee: Memorial Hospital of Dodge County

Location: Fremont, Nebraska

License Type: Nuclear Medicine

Inspection Date: 4/19/96

License No: 05-02-01

Inspection Type: Routine, Unannounced

Priority: II

Inspector: Contractor

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Field notes report not approved and signed by supervisor as of 7/19/96.
- c) Draft enforcement letter dated 5/8/96 not reviewed by supervisor or sent to licensee as of 7/19/96.
- d) Severity level not assigned to 2 of the 9 violations documented in the draft Notice of Violation of the draft enforcement letter.
- e) Field notes report does not contain all administrative information required on page one.
- f) No documentation provided in field notes report that ancillary workers such as secretarial, housekeeping or security personnel were interviewed as to training received from licensee per NE regulation 10.03 (equivalent to NRC 10 CFR 19.12) during inspection.

File No.: 5

Licensee: Becton Dickinson
Location: Holdrege, Nebraska
License Type: Irradiator-pool
Inspection Date: 5/30/96

License No: 37-03-01
Inspection Type: Routine, Unannounced
Priority: I (1 year)
Inspector: Contractor

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Field notes report not approved and signed by supervisor as of 7/19/96.
- c) Draft enforcement letter dated 6/10/96 not reviewed by supervisor or sent to licensee as of 7/19/96.
- d) Field notes report does not contain all administrative information required on page one.
- e) No documentation in field notes report as to whether pH, pool clarity, or Cl or F concentration in pool water was reviewed during inspection.
- f) No documentation provided in field notes report that ancillary workers such as secretarial, housekeeping or security personnel were interviewed as to training received from licensee per NE regulation 10.03 (equivalent to NRC 10 CFR 19.12) during inspection.
- g) No documentation in field notes report that any independent measurements were performed.

File No.: 6

Licensee: Nordian International
Location: Kanata, Ontario, Canada
License Type: Service
Inspection Date: 3/30/95

License No: 99-37-01
Inspection Type: Routine, Unannounced
Priority: III (5 years)
Inspector: MB

Comments:

- a) Field notes report indicate a comprehensive inspection. Excellent
- b) Field notes report approved by supervisor on 5/31/95 after enforcement letter dated 4/14/95 issued.

File No.: 7

Licensee: Bryan Enterprises

Location: Lincoln, Nebraska

License Type: Mobile Nuclear Medicine

Inspection Date: 3/9/95

License No:02-39-01

Inspection Type: Initial, Unannounced

Priority: II

Inspector: BH

Comments:

- a) Initial inspection did not occur until 16 months after license was issued on 11/22/93, which is not in accordance with IMC 2800.
- b) Field notes report and enforcement letter do not agree on the number of violations (field notes report documents 2 and enforcement letter 5).
- c) Letter from licensee dated May 8, 1995 not in file.
- d) Field notes report does not contain all administrative information required on page one.
- e) Field notes report not approved and signed by supervisor.

File No.: 8

Licensee: Maxim Technologies, Inc.

Location: Omaha, Nebraska

License Type: Radiography

Inspection Date: 3/22/96

License No:01-22-01

Inspection Type: Routine, Unannounced

Priority: I

Inspector: Contractor

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Field notes report not approved and signed by supervisor as of 7/19/96.
- c) Draft enforcement letter dated 4/5/96 not reviewed by supervisor or sent to licensee.
- d) Field notes report does not contain all administrative information required on page one.

File No.: 9

Licensee: Southeast Community College

Location: Milford, Nebraska

License Type: Academic/Radiography

Inspection Date: 2/6/96

License No:16-01-01

Inspection Type: Routine, Announced

Priority: I

Inspector: Contractor

Comments:

- a) Overdue inspection, completed at a scheduled frequency outside the 25% window.
- b) Field notes report not approved and signed by supervisor as of 7/19/96.
- c) Draft enforcement letter not reviewed by supervisor or sent to licensee as of 7/19/96.

File No.: 10

Licensee: Arcadian Corp

Location: Bellevue, Nebraska

License Type: Fixed Gauge

Inspection Date: 4/21/94

License No: 59-02-01

Inspection Type: Routine, Unannounced

Priority: III

Inspectors: MB, BH

Comments:

- a) Field notes report indicates a comprehensive inspection, all data present. Excellent
- b) Field notes report reviewed and approved by supervisor on 5/27/94, 7 days after enforcement letter dated 5/18/94 issued.
- c) Field notes report identified need for change in name of RSO on license.

File No.: 11

Licensee: Wayne State College

Location: Wayne, Nebraska

License Type: Academic (Non-Broad)

Inspection Date: 2/2/94

License No: 27-01-01

Inspection Type: Routine, Announced

Priority: III

Inspector: MB

Comments:

- a) Overdue inspection, completed at a frequency outside the 25% window.
- b) Field notes report indicates a comprehensive inspection. Excellent

File No.: 12

Licensee: Panhandle Drilling & Testing

Location: Scottsbluff, Nebraska

License Type: Portable Gauge

Inspection Date: 3/1/94

License No: 21-06-01

Inspection Type: Initial, Announced

Priority: III

Inspector: MB

Comments:

- a) Initial inspection did not occur until 13 months after license was issued on 2/9/93, which is not in accordance with the requirements of IMC 2800.
- b) Field notes report indicates a comprehensive inspection. Excellent

File No.: 13

Licensee: Kiewit Western Co.

Location: Omaha, Nebraska

License Type: Portable Gauge

Inspection Date: 8/3/95

License No: 01-80-01

Inspection Type: Initial, Announced

Priority: III

Inspectors: BH, JD

Comments:

- a) Initial inspection did not occur until 8/3/95, 9 months after license was issued on 12/5/94, outside the 6 month requirement.
- b) Acknowledgment letter for licensee's letter dated 8/3/95 containing corrective actions not issued until 11/25/95, greater than 30 days after receipt of licensee's letter.
- c) Field notes report does not indicate who attended the exit meeting.
- d) Field notes report does not contain all administrative information required on page one.
- e) Field notes report not approved and signed by supervisor.

File No.: 14

Licensee: High Plains Corporation

Location: Colwich, Nebraska

License Type: Fixed Gauge

Inspection Date: 3/13/95

License No: 17-01-01

Inspection Type: Initial, Announced

Priority: III

Inspector: MB

Comments:

- a) Field notes indicate a comprehensive inspection. Excellent

File No.: 15

Licensee: University of Nebraska

Location: Lincoln, Nebraska

License Type: Academic Broad

Inspection Date: 2/8-16/95

License No: 02-01-03

Inspection Type: Routine, Unannounced

Priority: I

Inspectors: JP, MB, BH

Comments:

- a) Inspection close-out still pending as licensee's response dated 4/20/95 not reviewed and acknowledged as of 7/19/96. Enforcement letter dated 3/16/95 documented 9 violations and 10 recommendations.
- b) Field notes report does not contain all administrative information required on page one.
- c) Field notes report not approved and signed by supervisor.
- d) Incident report found in license file, but not in separate file kept for incidents.

File No.: 16

Licensee: Sherwood Medical
Location: Norfolk, Nebraska
License Type: Irradiator-pool
Inspection Date: 4/16/96

License No: 07-02-01
Inspection Type: Routine Unannounced
Priority: I
Inspector: Contractor

Comments:

- a) Field notes report not approved and signed by supervisor as of 7/19/96.
- b) Draft enforcement letter not reviewed by supervisor or sent to licensee as of 7/19/96.

File No.: 17

Licensee: Beatrice Community Hospital
Location: Beatrice, Nebraska
License Type: Nuclear Medicine
Inspection Date: 9/1/94

License No: 03-02-01
Inspection Type: Routine, Unannounced
Priority: II
Inspector: JP

Comments:

- a) Field notes report not approved and signed by supervisor.
- b) Field notes report does not document evidence of observed operations, independent measurements, or that ancillary workers such as secretarial, housekeeping or security personnel were interviewed as to training received from licensee per NE regulation 19.03 (equivalent to NRC 10 CFR 19.12) during inspection.

File No.: 18

Licensee: University of Nebraska Medical Center
Location: Omaha, Nebraska
License Type: Academic Broad
Inspection Date: 2/28-3/3/95

License No: 01-50-01
Inspection Type: Routine, Unannounced
Priority: I
Inspectors: MB, JP, BH

Comments:

- a) Overdue inspection, completed at a frequency outside the 25% window.
- b) No field notes report in file documenting findings to support the 4 violations and 4 recommendations indicated in the enforcement letter.
- c) Could not determine whether supervisory review occurred.

File No.: 19

Licensee: Children's Memorial Hospital
Location: Omaha, Nebraska
License Type: Nuclear Medicine
Inspection Date: 2/2/94

License No: 01-07-05
Inspection Type: Routine, Announced
Priority: II
Inspector: JP

Comments:

- a) Field notes report indicate a comprehensive inspection, all data present. Excellent

File No.: 20

Licensee: Great Plains Nuclear Services

Location: Omaha, Nebraska

License Type: Services-calibration

Inspection Date: 8/3/95

License No: 01-59-01

Inspection Type: Routine, Announced

Priority: III

Inspectors: BH, JD

Comments:

- a) Overdue inspection, completed at a frequency outside the 25% window.
- b) Field notes report does not contain all administrative information required on page one.
- c) Field notes report not approved, dated or signed by supervisor.
- d) Neither the handwritten or typed field notes report found in the file were signed by the inspector.

In addition the following inspection accompaniments were made as part of the on-site IMPEP review:

Accompaniment No.: 1

Licensee: Bishop Clarkson Memorial Hospital

Location: Omaha, Nebraska

License Type: Irradiator

Inspection Date: 6/24,25/96

License No: 01-12-05

Inspection Type: Routine, Unannounced

Priority: II (3 years)

Inspector: JD

Comments:

- a) This was an accompaniment by J. Johansen, a team member.

Accompaniment No.: 2

Licensee: Bishop Clarkson Memorial Hospital

Location: Omaha, Nebraska

License Type: Nuclear Medicine

Inspection Date: 6/24,25/96 and 7/11/96

License No: 01-22-01

Inspection Type: Routine, Unannounced

Priority: II

Inspector: BH

Comments:

- a) This was an accompaniment by J. Johansen, a team member on 6/24-25/96.
- b) Inspection was completed by NE inspectors on 7/11/96.

Accompaniment No.: 3

Licensee: Professional Service Industries, Inc.

Location: Omaha, Nebraska

License Type: Radiography

Inspection Date: 6/26,28/96

License No: 01-08-03

Inspection Type: Routine, Unannounced

Priority: I (1 year)

Inspector: CR

Comments:

- a) This was an accompaniment by J. Johansen, a team member.
- b) The inspector is currently the program manager for the LLRW program.

Accompaniment No.: 4

Licensee: Radiology Nuclear Medicine

Location: Omaha, Nebraska

License Type: Mobil Nuclear Medicine

Inspection Date: 6/27/96

License No: 01-52-01

Inspection Type: Routine, Unannounced

Priority: II

Inspector: HS

Comments:

- a) This was an accompaniment by J. Johansen, a team member.
- b) The inspector normally works in the LLRW program.

Accompaniment No.: 5

Licensee: Daniel J. Thiele

Location: Omaha, Nebraska

License Type: Portable Gauge

Inspection Date: 7/16/96

License No: 01-84-01

Inspection Type: Initial, Announced

Priority: III (5 years)

Inspector: JD

Comments:

- a) This was an accompaniment by J. Johansen, a team member.

Accompaniment No.: 6

Licensee: Omni Engineering

Location: Omaha, Nebraska

License Type: Portable Gauge

Inspection Date: 7/16/96

License No: 01-83-01

Inspection Type: Initial, Unannounced

Priority: III

Inspector: JD

Comments:

- a) This was an accompaniment by J. Johansen, a team member.

APPENDIX F

NEBRASKA INCIDENT FILES REVIEWED

File No. 1

Licensee: Nebraska Civil Defense Agency

Location: Norfolk, NE

License #: 02-02-02

Date of Event: Unknown

Type of Event: Loss of material

Summary of Incident: This event was identified as significant in response to the questionnaire. A Co-60 capsule used in training exercises conducted at the Norfolk Fire Department, was discovered missing during an inventory check. Licensee conducted extensive investigation and concluded the capsule was probably discarded to a local landfill. Event was not reported to NRC.

File No. 2

Licensee: Sherwood Medical

Location: Norfolk, NE

License#: 07-02-01

Date of Event: 09/09/95

Type of Event: Irradiator equipment failure

Summary of Incident: This event was identified as significant in response to the questionnaire. Licensee failed to report equipment failure event involving the failure of an irradiator pool level switch. State follow up resulted in issuance of NOV for failure to report within 24 hours and operating with a failed component in violation of license condition.

NOV issued 10/17/95 referenced 9/22/95 inspection which was not documented in the file. Event was not reported to NRC.

File No. 3

Licensee: Sherwood Medical

Location: Norfolk, NE

License#: 07-02-01

Date of Event: 11/30/95

Type of Event: Irradiator equipment failure

Summary of Incident: This event was identified as significant in response to the questionnaire. Event involved equipment problem at irradiator facility--barrier door malfunctioned when changed to index mode. The team found, in discussions with the radiation program manager that, at State direction, licensee contacted manufacturer, Nordian, who corrected faulty PLC logic rung.

File contained no documentation on State inspection, or follow up action. Documentation only included licensee letters and responses.

File No. 4

Licensee: Univ. of Nebraska at Lincoln

Location: Lincoln, NE

License #: 02-01-03

Date of Event: Unknown

Type of Event: Unauthorized transport of radioactive material, P-32

Summary of Incident: Event involving loss of control of radioactive material, P-32.

Unauthorized transport of P-32 between U. of NE-Lincoln and the East Campus via public transportation. Through discussions with radiation program manager, State performed routine inspection on 2/8-10/95. NOV issued March 10, 1995, cited 9 violations and contained 10 recommendations, appeared to support a detailed inspection.

The review team concluded that State response was not timely and documentation was inadequate, field notes were sporadically filled out in pencil--many areas not addressed. No indication of supervisory review, and no notification to NRC in response to an inquiry to the States regarding events involving P-32.

File No. 5

Licensee: Ecova Corporation

Location: Kimball, NE

License #: 71-01-01

Date of Event: 08/15/94

Type of Event: Unauthorized removal of equipment

Summary of Incident: Licensee failed to timely report unauthorized removal and replacement of Ohmart SH-F1, Cs-137 level density gauge, Serial No. 66846, during routine maintenance on ellutriator to which gauge was attached, which resulted in stuck shutter. Licensee's event report to the State, after the fact, indicated that proper corrective actions were taken by notifying manufacturer who repaired, reinstalled, surveyed and leak tested gauge prior to notification to State. In discussions, State staff indicated no response to LER necessary due to fact licensee took proper corrective actions. Any event involving equipment required by regulation or license condition to prevent releases exceeding regulatory limits should be reported within 24 hours of occurrence. This event was not reported to NRC.

File No. 6

Licensee: Cinemark-8 Stockyard Movie Theater

Location: Omaha, NE

License #: GL0336

Date of Event: 09/09/94

Type of Event: Stolen material

Summary of Event: Vandals stole seven NRD Model T-4001 exit signs containing 8.4 Ci of H-3. Licensee advised to report theft to local police. No follow up action indicated by State.



STATE OF NEBRASKA

Office of the Attorney General

2115 STATE CAPITOL BUILDING
LINCOLN, NE 68509-8920
(402) 471-2682
TDD (402) 471-2682
CAPITOL FAX (402) 471-3297
1236 K ST. FAX (402) 471-4725

RECEIVED
DEPARTMENT OF HEALTH

SEP 09 1996

DON STENBERG
ATTORNEY GENERAL

STEVE GRASZ
LAURIE SMITH CAMP
DEPUTY ATTORNEYS GENERAL

September 6, 1996

Ms. Joyce Davidson, Health Physicist
Radioactive Materials Program
Nebraska Department of Health
301 Centennial Mall South
Lincoln, NE 68509-5007

Dear Ms. Davidson:

At your request, I have conducted a brief, preliminary review of the draft regulations for Title 180 NAC 1 and have found no obvious problems with statutory authority or constitutionality. The materials which you sent for our review include the draft amendments to 180 NAC 1-004.21 and 180 NAC 1-015.26 and the new Section 019. As we discussed, the time constraints imposed by your request for a preliminary review of these regulations preclude a comprehensive review of these complex regulations. You should also be aware that, while I have reviewed the draft regulations, the Attorney General has not yet reviewed the regulations as he would review final regulations adopted by the Department.

Please feel free to call if you have any questions concerning this matter.

Sincerely,

DON STENBERG
Attorney General

Lynn A. Melson
Assistant Attorney General

9-681-6.24

David K. Arterburn
L. Jay Bertel
J. Kim Brown
David T. Bydalek
Dele A. Coker
James A. Elworth
Lynne R. Fritz
Royce M. Harper

Lauren L. Hill
Jay C. Minsley
Amy Hollenbeck
William L. Harland
Marilyn B. Hutchinson
Katherine A. Klein
Joseph P. Loudon

Charles E. Lowe
Lisa D. Martin-Price
Lynn A. Melson
Ronald D. Moravec
Fredrick F. Neid
Marie C. Pawol
Kenneth M. Payne

Paul H. Potadie
Jonathan Robitaille
Herbert B. Rupe
James D. Smith
James M. Speers
Mark D. Starr
Martin Swenson

Timothy J. Tewel
John R. Thompson
Barry Weid
Terri M. Woods
Alfonse Whitaker
Melanie J. Whitlatch-Montez
Linda L. Willard

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



NOV 5 1996
5 PM 2:26
Benjamin Nelson
Governor

November 1, 1996

U.S. Nuclear Regulatory Commission
Office of State Programs
Mail Stop 3D23
Washington, DC 20555

Attn: Richard L. Bangart, Director
Office of State Programs

Dear Mr. Bangart:

This letter is in regards to the draft report provided to our office on October 18, 1996 which details the findings and recommendations of the IMPEP team which conducted a review of our radiation control program during the period of July 15-19, 1996. The draft report was reviewed for factual correctness by the appropriate program managers and any corrections, clarifications, or proposed revisions are attached.

The interpretation and analysis of 180 NAC 1-012.22 by our legal staff is currently in progress and is not addressed in this letter as requested. An accurate estimate of the date when analysis will be completed is being determined and will be indicated to you as soon as possible.

We are currently addressing the recommendations identified in the report, and we will continue to keep you informed on our progress as in our August 6, September 10, and October 30, 1996 letters. It is our hope that Nebraska's commitment to maintaining a radiation control program that ensures the public health and safety will be evident.

If you have any other questions prior to issuing the final report, please feel free to contact Brian Hearty at (402) 471-2168 or the LLRW Program at (402) 471-3380 as appropriate.

Sincerely,

A handwritten signature of Mark B. Horton in dark ink.

Mark B. Horton, M.D., M.S.P.H.
Director
Nebraska Department of Health

Enclosures

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

November 1, 1996

U.S. Nuclear Regulatory Commission
Office of State Programs
Mail Stop 3D23
Washington, DC 20555

Attn: Richard L. Bangart, Director
Office of State Programs

Dear Mr. Bangart:

I have reviewed the draft report issued by the IMPEP review team with regard to factual correctness for the Radioactive Materials Program and have the following comments:

1. 3.1 Status of Materials Inspection Program

Refer to the second paragraph, eleventh line, (3): As stated in Question A.1.3. of the IMPEP questionnaire, all service licensees were previously assigned a five year inspection frequency. After review of IMC 2800, the inspection frequencies of service licensees were revised to correspond to the appropriate three or five year frequency.

Refer to the second paragraph, fifteenth line: The presence of a service license for which IMC 2800 requires a two year inspection frequency is not documented in the report and is not readily clear from a review of IMC 2800 and our licensees. IMC 2800 requires a two year inspection frequency for service licensees providing Decontamination Services and Waste Disposal Service Prepackaged Only and Nebraska does not have a licensee in either category. If you will indicate which service licensee you have determined requires a two year inspection frequency, the frequency will be revised.

Refer to the third paragraph, seventh line: The contractor performed 27 inspections, however, 13 of the inspections were not yet overdue in accordance with IMC 2800. The contract was written to have performed all inspections that were identified as overdue at the time, and to have performed as many other inspections as financially possible.

Refer to the fifth paragraph, sixth line: The presence of 10 initial inspections which are due is not documented in the report and was not discussed at the time of the review. If the report is referring to all licensees that do not have an Last Inspected date on our tracking system, there are explanations that may be provided. One license, 02-20-01, is our program license. Two of the licenses, 01-39-03 and 10-03-04, authorize the nuclear power plant to use radioactive material at temporary jobsites in the event of an

9441-30507 888

Richard L. Bangart, Director

November 1, 1996

Page 2

emergency situation, and material has not been used under these licenses. One license, 99-46-01, is an out-of-state licensee from Wisconsin authorizing non-AEA material and has not yet entered the state. One license, 99-43-01, is an out-of-state service licensee and has not entered the state since their license was placed in an deferred status October 10, 1991. If any further guidance on this can be given, it would be appreciated.

Refer to the eleventh paragraph, eleventh line, (4): IMC 2800 04.03a. requires that initial inspections be performed within six months of receipt of licensed material, within six months of beginning licensed activities, or within one year of license issuance. The use of a standard condition on new licenses to require notification of receipt of material and the beginning of licensed activities in addition to the telephone contacts now used by the program is being explored.

2. 3.2 Technical Staffing and Training

Regarding the third paragraph: The second reorganization was not fully implemented until July 1, 1995. As stated in the report, a permanent program manager for the Radioactive Materials Program had already been designated on April 24, 1995. An internal memorandum, copy enclosed, dated July 20, 1995, documents that the LLRW Program Manager was designated as the Acting Radioactive Materials Program Manager effective June 23, 1995. This designation of an acting program manager was effective until a permanent manager was named on May 1, 1996.

Refer to the sixth paragraph, eighth line: The Radioactive Materials Program Manager position was not permanently filled for almost a year.

Refer to the seventh paragraph, thirteenth line: A formalized training manual was not available, but database records for a majority of the training received by program staff were available but were unknown to the new Program Manager.

Refer to the eighth paragraph, eighth line: A major factor not included in the reasons why a newly hired staff member was not yet considered qualified to perform low priority inspections was that program staff were limited to licensing activities while inspections were performed by contract personnel.

Richard L. Bangart, Director

November 1, 1996

Page 3

3. 3.3 Technical Quality of Licensing Actions

Regarding the first paragraph, fourth line and fourth paragraph, third line: The Program Manager provided the review team with a licensing log book that covered the entire review period, but the handwritten logbook did not easily allow for statistical review of the pending actions, and the program began using a computer based spreadsheet for tracking licensing actions in July 1995.

Refer to the fourth paragraph, fifth line: Our records indicate that 48 licensing actions were completed between July and December 1995, and that 70 licensing actions were completed between January and June 21, 1996.

Refer to the fourth paragraph, tenth line: The handwritten sheets were kept in one logbook and updated by program support staff.

Regarding the seventh, eighth and ninth paragraphs: Does this statement indicate that the team intends to create a non-common performance indicator to be used to evaluate Agreement State Programs and not NRC Regions on the status of a licensing backlog? The issue of a backlog of licensing actions should be addressed in the report under 3.2 Technical Staffing and Training and any recommendations dealing with administrative procedures and get-well plans to eliminate backlogs included there. It is proposed that the finding for this indicator, as defined in NRC Management Directive 5.6, be Satisfactory since no recommendations were made regarding technical quality.

4. 3.4 Technical Quality of Inspections

Refer to the fifth paragraph, ninth line: Delete Low-Level.

Refer to the eighth paragraph, third line: An indication that the Inspection Manual was used by program staff can be found in the draft report in paragraph three of this section which states that the State uses separate inspection field notes for various classes of licensees. These field note forms are a large part of the current Inspection Manual. The Enforcement Manual was written specifically into the contract for inspections and was used extensively by the contractor prior to being implemented by program staff.

Richard L. Bangart, Director
November 1, 1996
Page 4

Refer to the eighth paragraph, fifth line: The Enforcement Manual contains boilerplate citations to be used in drafting an NOV.

Regarding the eleventh paragraph: A Program Manager for the Radioactive Materials Program was designated as indicated in item 2. of this letter. A delegation of authority dated June 20, 1995, copy enclosed, was provided to the review team. It stated that inspection letters were to be signed by the lead inspector with peer review if a notice of violation was to be included. After discussions with the review team, the delegation of authority was revised to clearly indicate that a management review was required. See Attachment 1 of draft report for a copy of the revision (the copy provided to the State did not include the Table which was printed on the back of the August 19, 1996 memorandum).

Refer to the twelfth paragraph, nineteenth line, and Appendix E: Several references are made to not documenting the training provided to ancillary staff, such as secretarial, housekeeping or security personnel as required by 10 CFR 19.12. It is not clear if these comments take into account the revised Part 19 which requires training for only individuals likely to receive an occupational dose in excess than 100 mrem.

5. 3.5 Response to Incidents and Allegations

Refer to the second paragraph, eleventh line (and other places): Revise reference to state NRC Management Directive 8.8, "Management of Allegations."

6. 4.1.2 Status and Compatibility of Regulations

Refer to the second paragraph, seventh line: Has the review team made a determination that the conditions placed on each irradiator license are not legally binding or equivalent to or more stringent than the requirements in 10 CFR Part 36?

Richard L. Bangart, Director
November 1, 1996
Page 5

7. 5.0 Summary

Recommendations 1, 2 and 5: It is proposed that Recommendations 1 and 5 be removed since they reiterate what is already stated in Recommendation 2.

Recommendation 9: It is unclear if this recommendation is directed to the State or to the NRC as stated in Section 3.2 of the report. It is proposed that this recommendation be removed under the assurance that the State will carefully consider the needs of the Agreement State Program during its reorganization.

Recommendations 10 and 11: As stated in Item 3. of this letter, these recommendations reiterate what as already been stated in Recommendation 8. and should be removed.

Recommendation 17: It is proposed that Recommendation 17 be removed since it reiterates what is already stated in Recommendation 8.

If you have any questions regarding the comments or proposed changes to the draft inspection report, please contact me at (402) 471-2168.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian P. Hearty", with a stylized flourish at the end.

Brian P. Hearty, Manager
Radioactive Materials Program

Enclosures

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

MEMORANDUM

Date: June 20, 1995

From: Mark B. Horton, M.D., M.S.P.H.

To: Burke E. Casari, Director
Environmental Health Division

RE: Delegation of authority to sign documents in the Radioactive Materials Program.

I have attached a table dated June 19, 1995, showing the delegation of authority to sign licensing, inspection and other documents generated by the Radioactive Material Program.

XC: Jack Daniel, Administrator
Environmental Health and Toxicology Section

**Nebraska Department of Health
Environmental Health Division
Environmental Health and Toxicology Section
Radioactive Materials Program**

June 19, 1995

Document	Signature Block	Person whom may sign for the named individual
New License *	Program Manager	none
License Renewal *	Program Manager	none
License Amendment *	Program Manager	Program Health Physicist (Author Only)
License Termination *	Program Manager	none
Renewal Request	Individual reviewing the license to determine long or short form renewal (Program Manager or Health Physicist)	none required
Reciprocity Request	Individual providing the information (Program Manager, Program Health Physicist)	none required
Reciprocity Review	Individual reviewing information for completeness	none required
Timely Filed Letter	Individual reviewing the application to assure it is valid (Program Manager or Health Physicist)	none required
Inspection Letter * If IONC or REC	Program Health Physicist (Lead Inspector)	none
Enforcement Letter	Program Manager	none
Inspection Reply Letter * If participatory insp.	Program Health Physicist (Lead Inspector)	none
Inspection Report *	Program Health Physicist (All Inspectors, Lead First)	none
Deficiency Letter	Individual reviewing licensing request or inspection reply (Author or Lead Inspector)	none required
Policy Statement	Program Manager or Higher	none
Procedures	Program Manager	none
Event Database Update	Individual providing the information (Program Manager, Program Health Physicist)	none required
Information Request	Individual providing the information (Program Manager, Program Health Physicist or Support Staff)	none required

* Peer review required for this document.

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

MEMORANDUM

DATE: July 20, 1995

TO: Radioactive Materials Program Staff

FROM: Jack Daniel, Administrator *JL*
Environmental Health Protection Section

RE: Acting Program Manager for Radioactive Materials Program

On June 23, 1995, Cheryl K. Rogers was designated the Radioactive Materials Program Manager and assumed the responsibilities and signing privileges of the position until it is filled on a permanent basis. In the event of Cheryl's absence, Joyce K. Davidson is designated to have the signing privileges of the Radioactive Materials Program Manager.

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director

December 13, 1996



E. Benjamin Nelson
Governor

Richard L. Bangart
Director
Office of State Programs
United States Nuclear
Regulatory Commission
Washington, D.C. 20555-0001

RE: October 16, 1996 IMPEP report

Dear Mr. Bangart:

This is the response to issue 4.1.2 in the October 16, 1996, IMPEP that you requested.

Under Nebraska law all regulations properly adopted and filed with the Nebraska Secretary of State have the effect of statutory law. 180 NAC 1-012.22 was properly adopted and filed, as such it has the effect of law and therefore is a standard and not a goal or design objective. The Department at the time this regulation was adopted did not intend it to apply to storage and treatment facilities that did not also do disposal. It only intended this regulation to apply to those disposal facilities which must be able to demonstrate that concentrations released to the general environment would not exceed the standard.

The state does not currently have any brokers, treatment facilities, or storage facilities to which this regulation has been applied. According to your letter this is a Division 1 compatibility requirement which can only be applied to land disposal facilities. The Department intends to amend the regulation and anticipates this can be done by June 30, 1997. The process has been started and will be expedited as much as possible. A copy of the proposed amendment is enclosed for your comment.

Sincerely,

Teresa M. Hampton
Assistant Agency Counsel

Cheryl Rogers
Program Manager
Low-Level Radioactive Waste Program

Enclosure

cc. Steve Moeller

4612300070

8PP

Title 180
Chapter 180

PERFORMANCE OBJECTIVES

012.21 General Requirement. Management facilities shall be sited, designed, operated, closed, and controlled after closure so that reasonable assurance exists that exposures to individuals are within the requirements established in the performance objectives in 012.22 through 012.25. Subsection
~~012.21 applies only to a near-surface disposal facility.~~

012.22 Protection of the General Population from Releases of Radioactivity. Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants, or animals shall not result in an annual dose exceeding an equivalent of 0.25 Msv (25 millirems) to the whole body, 0.75 Msv (75 millirems) to the thyroid, and 0.25 Msv (25 millirems) to any other organ of any member of the public. Reasonable effort should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

012.23 Protection of Individuals from Inadvertent Intrusion. Design, operation, and closure of the management facility shall ensure protection of any individual inadvertently intruding into the management site and occupying the site or contacting the waste at any time after active institutional controls over the management site are removed.

012.24 Protection of Individuals During Operations. Operations at the management facility shall be conducted in compliance with the standards for radiation protection set out in Section 004 of these regulations, except for releases of radioactivity in effluents from the management facility, which shall be governed by 012.22. Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable.

012.25 Stability of the Management Site After Closure. The management facility shall be sited, designed, used, operated, and closed to achieve long-term stability of the management site and to eliminate, to the extent practicable, the need for ongoing active maintenance of the management site following closure so that only surveillance, monitoring, or minor custodial care are required.

TECHNICAL REQUIREMENTS FOR MANAGEMENT FACILITIES

012.26 Management Site Suitability Requirements.

012.26A Management Site Suitability for Disposal. The primary emphasis in management site suitability is given to isolation of wastes and to management site features that ensure that the long-term performance objectives are met.

012.26A1 The management site shall be capable of being characterized, modeled, analyzed and monitored.

012.26A2 Within the region where the facility is to be located, a management site should be selected so that projected population growth and future developments are not likely to affect the ability of the management facility to meet the performance objectives of this section.

012.26A3 Areas shall be avoided having known natural resources which, if exploited, would result in failure to meet the performance objectives of this section.

**ADDENDUM TO THE NEBRASKA IMPEP REPORT
COVERING JULY 15-19, 1996 IMPEP REVIEW**

**SUBJECT: NRC RESPONSE TO COMMENTS PROVIDED BY
THE STATE OF NEBRASKA TO THE DRAFT IMPEP REPORT,
DATED OCTOBER 16, 1996**

COMMON PERFORMANCE INDICATORS

1. 3.1 Status of Materials Inspection Program

- a. **State Comment:** As stated in Question A.1.3. of the IMPEP Questionnaire, all service licensees were previously assigned a five year inspection frequency. After review of IMC 2800, the inspection frequencies of service licensees were revised to correspond to the appropriate three or five year frequency.
- b. **State Comment:** The presence of a service license for which IMC 2800 requires a two year inspection frequency is not documented in the report and is not readily clear from a review of IMC 2800 and our licensees. If you will indicate which service licensee you have determined requires a two year inspection frequency, the frequency will be revised.

NRC Response to a. and b.:

- a. The 10/16/96 Draft IMPEP Report already stated that "the State indicated that they had completed incorporation of the new priorities into their inspection tracking system prior to our review."
- b. The team revised the report to read as follows: Subsequently the team found that the State does not have a service license requiring inspections at one or two year intervals, but they do have a service license for which IMC 2800 indicate a three year inspection frequency and the State was conducting inspections at a three year interval.
- c. **State Comment:** The contractor performed 27 inspections, however, 13 of the inspections were not yet overdue in accordance with IMC 2800. The contract was written to perform all overdue inspections at the time, and to have performed as many other inspections as financially possible.

NRC Response: Based on the computerized inspection tracking list provided by the State, the contractor performed 27 inspections of which 14 were overdue. No change to report.

- d. **State Comment:** The presence of 10 initial inspections which are due is not documented in the report and was not discussed at the time of the review. The State provided clarification regarding several licensees.

NRC Response: The team revised the report as follows: Subsequent to the review, the State informed the team that 2 of the inspections due licenses are issued to nuclear power plants authorizing the use of radioactive material at temporary jobsites in the event of an emergency situation, one is an out-of-state licensee from Wisconsin authorizing non-AEA material, and one is an out-of-state service licensee for which no activity has occurred and is currently in a deferred status, which reduces the number of inspections due to 5.

- e. **State Comment:** The State indicated that the report contained an incomplete statement regarding IMC 2800 as follows: The report stated: "Of the 20 files reviewed by the team... were not inspected within 6 months of issuance as required by IMC 2800." The State indicated that IMC 2800 states within 6 months of receipt of licensed material, or within one year of license issuance. The State also stated that in response to the team's suggestion the State added the use of a standard license condition on new licenses to require notification of receipt of material

NRC Response: The report was revised to state: "were not inspected within the stated frequencies identified in IMC 2800."

2. 3.2 Technical Staffing and Training

- a. **State Comment:** The State clarified that the second reorganization was not fully implemented until July 1, 1995. Also an internal memorandum, dated July 20, 1995, documents that the LLRW Program Manager was designated as the Acting Radioactive Materials Program Manager effective June 23, 1995, until a permanent manager was named on May 1, 1996, which contradicts the statement in the report that "in the second reorganization the division director position was lost without naming a permanent RAM program manager."

NRC Response: The report was revised as follows: "A July 20, 1995 internal memorandum that was provided to the IMPEP team during the review, designates the LLRW program manager as Acting RAM Program Manager, but based on statements made by program staff to the team, it was not clear to the RAM staff that the designated duties went beyond signature authority for licenses. NOTE: The LLRW program manager told the IMPEP team that she was not the Acting RAM manager during that time; that she was to spend up to 20% of her time in the RAM licensing area as needed.

- b. **State Comment:** The State responded to the team assessment that "a formalized training manual and formal training records for the staff were not available," by indicating that database records for a majority of the training received by program staff were available but were unknown to the new Program Manager.

NRC Response: The report was revised as follows: "Subsequent to the review, the team was informed that database records for a majority of the training received by program staff was available, but were unknown to the new program manager."

- c. **State Comment:** The state responded to the statement in the report "that a newly hired staff member was not yet considered qualified to perform low priority inspections after one year on-the-job," with the fact that program staff were limited to licensing activities while inspections were performed by contract personnel.

NRC Response: This information does not address primary issue that the State lacked a written program for staff qualification, therefore, no change to report.

3. 3.3 Technical Quality of Licensing Actions

- a. **State Comment:** The State provided clarification regarding team statement that "due to lack of records, the team was unable to review or evaluate case backlog prior to July 1995." The State commented that the Program Manager provided the review team with a licensing a log book that covered the entire review period, but the handwritten logbook did not easily allow for statistical review of the pending actions, and the program began using a computer based spreadsheet for tracking licensing actions in July 1995.

NRC Response: NRC added the States clarifying information to the report. The team also revised the report to read "Due to problems encountered by the team in trying to review the handwritten licensing logbook, we were unable to review or evaluate the case backlog prior to July 1995."

- b. **State Comment:** The State commented that their records indicate that 48 licensing actions were completed between July and December 1995 versus the team statement of 38 completed, and that 70 licensing actions were completed between January and June 21, 1996 versus the team statement that 48 were completed.

NRC Response: The team reviewed the licensing log statistics provided to the team at the review and found that the statistics indicate 38 and 48 licensing actions, as contained in the report. The team did not change the team results, but added that, subsequent to the review, the State indicated 70 and 48.

- c. **State Comment:** The State commented that the report reference to "handwritten sheets kept by individual reviewers," should be clarified to include "which were kept in one logbook."

NRC Response: The team added the clarifying information to the report.

- d. **State Comment:** The State questioned the team's inclusion of detailed information on a backlog in licensing and indicated that it created an additional non-common performance indicator for the States which was not being applied to the NRC

Regions. The State commented that the information should be included under 3.2, Technical Staffing and Training, with any recommendations dealing with administrative procedures and get-well plans to eliminate backlogs. Additionally the State proposed a Finding of Satisfactory for this indicator since no recommendation was made regarding technical quality.

NRC Response: The team revised the report and as recommended by the State, included the licensing backlog information and any recommendations under Section 3.2, Technical Staffing and Training. After removing the recommendations regarding the licensing backlog from this section, the finding was changed to "Satisfactory."

4. Technical Quality of Inspections

- a. **State Comment:** The State commented in response to the team's statement in the report, "that there was no indication that staff were using and applying the Inspection and Enforcement Manuals." The State responded that an indication that the Inspection Manual was used by program staff can be found in the draft report where it references that the State uses separate inspection field notes for various classes of licensees. The field note forms are a large part of the current Inspection Manual. The Enforcement Manual was written specifically into the contract for inspections and was used extensively by the contractor prior to being implemented by program staff.

NRC Response: The team noted the inconsistency and deleted this statement from the report.

- b. **State Comment:** The State, in response to the team's statement that "the normal practice of a supervisory review was not practiced during this time," commented that a June 20, 1995 delegation of authority stated that inspection letters were to be signed by the lead inspector with peer review if a NOV was to be included. Since the review, the statement has been revised to clearly indicate that a management review was required.

NRC Response: The modification was made after the IMPEP review, therefore, no change to report.

- c. **State Comment:** The State commented on several references in the report to not documenting the training provided to ancillary staff, such as secretarial, housekeeping, or security personnel as required by 10 CFR 19.12. It is not clear if these comments take into account the revised Part 19, which requires training only to individuals likely to receive an occupational dose in excess of 100 mrem.

NRC Response: The team reviewed the State's equivalent Part 19 regulations and noted that the State has not adopted the 100 mrem amendment to Part 19, which

is due for adoption by Agreement State in 1998. The report was not changed, as the revised Part 19 does not currently apply to Nebraska.

5. Status and Compatibility of Regulations

State Comment: Has the review team made a determination that the conditions placed on each irradiator license are not legally binding or equivalent to or more stringent than the requirements in 10 CFR Part 36?

NRC Response: The option of legally binding license conditions equivalent to 10 CFR Part 36 had not been officially implemented at the time of review.

6. Summary

- a. **State Comment:** Recommendation 1, 2, and 5 are similar, proposed removal of 1 and 5 and maintain 2.

NRC Response: Recommendation accepted.

- b. **State Comment:** Unclear whether Recommendation 9 applies to State or NRC.

NRC Response: Recommendation 9 applied to NRC and was removed from the list of recommendations for the State, and placed in the report as a reminder for NRC action.

- c. **State Comment:** Recommendation 8, 10, and 11 are similar, propose removal of 10 and 11, and maintain 8.

NRC Response: Recommendation accepted.

- d. **State Comment:** Recommendation 17 reiterates what is stated in No. 8, and the State proposed that it be removed.

NRC Response: Recommendation number 8 did not include event reporting which is the area of concern indicated in recommendation No. 17, therefore, no change to report.

NON-COMMON PERFORMANCE INDICATORS

Low-Level Radioactive Waste

The Low-Level Radioactive Waste Program staff provided five editorial comments to clarify the organizational structure and sharing of responsibilities between the RAM and LLRW program. All of their comments have been incorporated in the revised Nebraska Draft Final IMPEP Report.

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

September 10, 1996

U.S. Nuclear Regulatory Commission
Office of State Programs
Mail Stop 3D23
Washington, DC 20555

Attn: Patricia M. Larkins, Health Physicist
IMPEP Team Leader

Dear Ms. Larkins:

This letter is in regards to the IMPEP review conducted by your team the week of July 15-19, 1996. A preliminary finding identified for Performance Indicator I., Status of Materials Inspection Program, was the lack of a formal inspection plan. An inspection schedule, copy enclosed, was created for 1996 which will allow all overdue inspections and those that are coming due to be completed by the end of the year. Two of the inspections identified as overdue in the questionnaire have already been performed, Thiele Geotech, Inc., and Nucletron-Oidelft Corporation and are not included in the inspection schedule. The methodology used in the scheduling process will be formalized and included in the Program's inspection manual to ensure that all inspections will be completed in a timely manner.

A preliminary finding identified for Performance Indicator III., Technical Quality of Inspections, was the lack of a management review of the inspection report prior to the Notice of Violation being issued. The delegation of authority to sign documents in the Radioactive Materials Program has been modified to require that the Program Manager sign all inspection reports, or field notes reports, if appropriate, prior to the inspector issuing the inspection letter. A copy of the revised delegation of authority is enclosed.

On August 19, 1996, a public hearing on the proposed regulations regarding the licensing of irradiators was held and no comments were made. The final proposed draft was brought before our Radiation Advisory Council on September 6, 1996, and it was approved to go to the Board of Health. The Board meets on September 16, 1996, a copy of the agenda for that meeting is enclosed. After approval by the Board, the draft regulations will be provided to the Attorney General, and with his approval offered for the Governor's signature. A preliminary review performed by the Assistant Attorney General found no obvious problems with statutory authority or constitutionality, a copy of the letter is enclosed.

301 Centennial Mall South • P.O. Box 95007 • Lincoln, Nebraska 68509-5007
FAX (402) 471-0383 • TTY 471-6421

An Equal Opportunity/Affirmative Action Employer

Printed with soy ink on recycled paper

ATTACHMENT 5


9610110002 SEP

Patricia M. Larkins
September 10, 1996
Page 2

It is our intention to quickly address the other preliminary findings identified in your exit interview, and we welcome the ongoing review process. It is our hope that Nebraska's commitment to maintaining a radiation control program that ensures the public health and safety will be evident.

If you have any other questions prior to issuing the draft findings, please feel free to contact Brian Hearty or Cheryl Rogers at (402) 471-2168.

Sincerely,



Jack L. Daniel, Administrator
Environmental Health Protection Section

JLD/bph

1996 RADIOACTIVE MATERIALS PROGRAM INSPECTION SCHEDULE

INSPECTION DATE(S)	LICENSE No.	LEAD INSPECTOR	INSPECTION TEAM
9/12/96	01-69-01	Brian Hearty	
9/25/96	02-26-01	Jim DeFrain	Brian Hearty
10/2-4/96	02-06-03	Brian Hearty	Jim DeFrain, Bryan Miller
10/3-4/96	01-04-01	Cheryl Rogers	John Fassell
10/10/96	01-63-01	Brian Hearty	Bryan Miller
10/11/96	02-43-01	Bryan Miller	Brian Hearty
10/16/96	11-02-01	Jim DeFrain	Brian Hearty
10/18/96	01-58-01	Jim DeFrain	Brian Hearty
10/21-22/96	01-07-02	Howard Shuman	John Fassell
10/28-11/1/96	01-50-01	Brian Hearty	Jim DeFrain, Bryan Miller, Joyce Davidson
11/5/96	02-10-03	Bryan Miller	Brian Hearty
11/7/96	02-16-01	Joyce Davidson	Bryan Miller
11/13-15/96	01-09-02	Brian Hearty	Jim DeFrain, Bryan Miller
11/21/96	02-26-02	Bryan Miller	Brian Hearty
11/25-26/96	01-12-04	Brian Hearty	Jim DeFrain
12/9-13/96	02-01-03	Jim DeFrain	Brian Hearty, Bryan Miller, Joyce Davidson
12/17/96	01-38-01	Bryan Miller	Brian Hearty

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

MEMORANDUM

Date: August 19, 1996

From: Mark B. Horton, M.D., MSPH *hst*

To: Burke E. Casari, Director
Environmental Health Division

RE: Delegation of authority to sign documents in the Radioactive Materials Program.

I have attached a table dated August 19, 1996, showing the delegation of authority to sign licensing, inspection and other documents generated by the Radioactive Material Program.

XC: Jack Daniel, Administrator
Environmental Health Protection Section

Brian P. Hearty, Manager
Radioactive Materials Program

7-11e

**Board of Health
Education and Health Promotion Committee
September 16, 1996 - 9:00 a.m.
Conference Room 3A**

Agenda

Review Regulations

174 NAC 8, Report of Induced Termination of Pregnancy and Fetal Death Certificate - Jane Elliott, contact person

173 NAC 1, Rules and Regulations Concerning the Reporting and Control of Communicable Diseases and Poisonings - Adi Pour, contact person

178 NAC 10, Regulations Governing Licensure of Water Well and Pump Installation Contractors and Certification of Water Well Drilling, Pump Installation, and Water Well Monitoring Supervisors - Rod Tremblay, contact person

178 NAC 12, Regulations Governing Water Well Construction, Pump Installation and Water Well Decommissioning Standards - Rod Tremblay, contact person

178 NAC 13, Procedural Rules for Operation of Board - Rod Tremblay, contact person

180 NAC 1, Nebraska Regulations for Control of Radiation-Ionizing - Joyce Davidson, contact person

Tobacco Resolution

1996 Board of Health Retreat Report

STATE OF NEBRASKA

DEPARTMENT OF HEALTH
Mark B. Horton, M.D., M.S.P.H.
Director



E. Benjamin Nelson
Governor

August 6, 1996

U.S. Nuclear Regulatory Commission
Office of State Programs
Mail Stop 3D23
Washington, DC 20555

Attn: Patricia M. Larkins, Health Physicist
IMPEP Team Leader

Dear Ms. Larkins:

This letter is in regards to the IMPEP review conducted by your team the week of July 15-19, 1996. A preliminary finding identified for Performance Indicator I., Status of Materials Inspection Program, was the lack of timely review of the inspection reports and issuance of enforcement letters for a group of 22 inspections performed by a contract inspector. The priority that was placed on this matter by the review team encouraged immediate action on our part to complete the review.

As of August 5, 1996, all contractor performed inspections have received a management review and the appropriate enforcement letters have been issued. Concerns that the inspection team had with the contractor drafted enforcement letters, such as the identification of repeat items of noncompliance and the proper listing of severity level, were addressed in the review process and corrected prior to issuance of the final notice of violation.

It is our intention to quickly address the other preliminary findings identified in your exit interview, and we welcome the ongoing review process. It is our hope that Nebraska's commitment to maintaining a radiation control program that ensures the public health and safety will be evident.

If you have any other questions prior to issuing the draft findings, please feel free to contact Brian Hearty or Cheryl Rogers at (402) 471-2168.

Sincerely,

Jack L. Daniel, Administrator
Environmental Health Protection Section

JLD/bph

301 Centennial Mall South • P.O. Box 95007 • Lincoln, Nebraska 68509-5007
FAX (402) 471-0383 • TTY 471-6421

An Equal Opportunity/Affirmative Action Employer

Printed with 50% and 60% recycled paper

ATTACHMENT 6

9609030418

2pp.

Agenda for Management Review Board Meeting
Wednesday, January 22, 1997, 1:00 a.m., OWFN, 6-B-11

1. Convention. MRB Chair convenes meeting. (HLThompson)
2. Old Business - Approval of previous MRB Minutes - Iowa (KSchneider)
3. New Business - Consideration of Nebraska IMPEP Report.
 - A. Introduction of Nebraska IMPEP Team Members. (PLarkins)
 - B. Introduction of Nebraska Representative and Other State Representatives Participating. (PLarkins)
 - C. Findings Regarding Nebraska Program. (IMPEP Team)
 - Technical Staffing/Training
 - Status of Inspection Program
 - Technical Quality of Licensing
 - Technical Quality of Inspections
 - Response to Incidents/Allegations
 - Legislation and Regulations
 - Low Level Radioactive Waste Program
 - D. Questions. (MRB Members)
 - E. Comments from State of Nebraska. (Deb Thomas)
 - F. MRB Consultation/Comments on Issuance of Report. (HLThompson)
4. Status of Upcoming Reviews. (KSchneider)
5. Adjournment. (HLThompson)

Invitees:

Hugh L. Thompson, MRB Chair, DEDR
Karen Cyr, MRB Member, OGC
Carl Paperiello, MRB Member, NMSS
Richard L. Bangart, MRB Member, OSP
Denwood Ross, MRB Member, AEOD
Roland Fletcher, Agreement State Liaison to MRB,
State of Maryland
Deb Thomas, State of Nebraska
Brian Hearty, State of Nebraska
Paul Lohaus, OSP
Kathleen Schneider, OSP
Patricia Larkins, IMPEP Team Leader, OSP
Jenny Johansen, IMPEP Member, RI
Richard Blanton, IMPEP Member, OSP
Ralph Cady, IMPEP Member, RES
Charles Mattson, IMPEP Member, State of Colorado