

REPORT AND STAFF EVALUATION
OF THE
NEBRASKA RADIATION CONTROL PROGRAM
FOR THE PERIOD
AUGUST 22, 1981 TO NOVEMBER 10, 1982

20th Regulatory Program Review

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The 20th Regulatory Program Review meeting with Nebraska representatives was held in two parts, October 6-8, 1982, and November 8-10, 1982, in Omaha and Lincoln, Nebraska, respectively. The State was represented by Dr. Henry Smith, Director of Health; Mr. Lawrence Graham, Assistant Director of Health; and Mr. Ellis Simmons, Director, Division of Radiological Health. The NRC was represented by Mr. Ralph S. Heyer, State Agreements Program, Region IV. Field technical assistance to the State, an accompaniment of a State inspector, and a review of personnel training needs was conducted on October 6-8, 1982. A review of selected license and compliance files, legislation, regulations, administration, and organization was conducted on November 8-10, 1982. The summary meeting regarding the results of the regulatory review and inspection accompaniment was held on November 10, 1982.

Conclusions

At the time of the review, no staff opinion was offered concerning the adequacy and compatibility of the Nebraska program for control of Agreement materials because of significant problems in Category I program areas.

The staff will consider offering an opinion on the adequacy and compatibility of the program following receipt and evaluation of the State's replies to our comments.

These conclusions are based on the review of the technical and administrative aspects of the Department's regulatory program for Agreement materials. Included in this review were examinations of selected licensing and compliance files, information related to the program indicators specified in the "Guidelines for NRC Review of Agreement State Radiation Control Programs," the results of accompaniment of a State inspector, the continuing exchange-of-information program between the State and the NRC, and a review of licenses issued by the Division of Radiological Health since August 22, 1981.

Summary Discussion with Dr. Henry Smith

A summary meeting to present the results of the regulatory program review was held in Lincoln, Nebraska. Attending this summary meeting, along with Dr. Smith, were Mr. Lawrence Graham and Mr. Ellis Simmons. The NRC representative was Mr. Ralph S. Heyer. The following comments and recommendations were made to Dr. Smith.

1. The indicator, "Status of Inspection Program," is a Category I indicator and recommends that the State maintain an inspection program adequate to assess licensee compliance with State regulations and license conditions. At the time of our review, there was a backlog of 48 inspections (which is 28 percent of Nebraska licenses) overdue, ranging from 3 months to 3 years. We recommend that management establish a short-term action plan for the next 3 to 6 months to deal with this backlog. Such a plan should include goals and set benchmarks, establish priorities, and provide progress

reports to management. This comment was developed due to the increase in overdue inspections in the State's priority Categories I, II, and III, which were 2, 29, and 17, respectively.

2. The indicator, "Enforcement Procedures," recommends that the radiation control program issue enforcement letters within 30 days following inspections and employ appropriate regulatory language clearly specifying all items of noncompliance and health and safety matters identified during the inspection. Our review disclosed cases where enforcement letters were not issued within the recommended 30 days following the inspection. In some cases, there was no documentation that letters were sent to the licensee. In other instances, it was noted that enforcement letters that were sent did not specify a time period for the licensee to respond. There were also cases where the licensee did not respond to an enforcement letter, and in other cases there was no documentation of a letter of acknowledgement from the State.

We recommend development of a tracking system such as a file book to maintain up-to-date information on the status of compliance and enforcement activities. The system should cover key milestones such as the date the enforcement letter was sent to the licensee, the date the licensee is requested to respond (usually 20-30 days), the date of the response, and whether each case is resolved or needs further attention. This would provide a means to monitor individual enforcement actions and provide statistical information about the program.

3. The Division should utilize specific short courses and workshops to maintain an appropriate level of staff technical competence in areas of changing technology. It is recommended that the license reviewer attend as many NRC "core" training courses as possible. These include "Licensing Orientation," "Medical Uses of Radioisotopes," and "Industrial Radiography." We also recommend that the new inspector attend the "Industrial Radiography" courses in the near future. NRC will fund the travel and per diem costs for those persons approved for the NRC sponsored training. "Training," is a Category II indicator.
4. "Staff Continuity," a Category II indicator, was also addressed. Since the last review, the program had lost two experienced technical staff members. We recommend that management closely monitor those factors that may have affected this turnover to assure that the factors do not continue to adversely affect the program's ability to attract and retain qualified staff in the future.
5. The reviewer commented on "Licensing Procedures," a Category II indicator. Our review of selected license files indicated that, in some cases, standard license conditions comparable with current NRC standard license conditions were not implemented. For example, the standard license condition for pharmacy licenses regarding molybdenum-99/technetium-99m breakthrough test for generators needs to be routinely incorporated when appropriate; e.g., radiopharmacy and medical licenses. A copy of current NRC standard license conditions has been furnished to Mr. Simmons.
6. "Inspection Reports" is a Category II indicator. In some cases, the inspection reports did not document the scope of the actual inspection conducted. The following items were not always reported: (a) the substance

of any discussions with licensee's management and the licensee's response; (b) results of any previous noncompliance items and identifying any areas of the licensee's program which should receive special attention during the next inspection; (c) independent physical measurements that may have been conducted during the inspection; and (d) pertinent comments developed during discussions with the licensee management or staff; e.g., worker interviews. Modifications of existing inspection forms and procedures coupled with closer supervisory review should enable improvements to take place.

It was suggested that the inspector continue using the respective checklists and to assure the report documents the results of the inspection in appropriate detail including the identification of those areas of the licensee's program which should receive special attention in the next inspection.

Summary Discussions with Mr. Ellis Simmons

The above comments and recommendations were all discussed with Mr. Simmons and his staff in detail.

Program Changes Related to Previous NRC Comments and Recommendations

A. Comment letter to Dr. H. D. Smith, September 24, 1981

1. Comment and Recommendation

This comment relates to a serious question concerning a Category II indicator, "Updating of Regulations." State regulations should be scheduled for revision at least every 2 years. We do not believe that a determination of compatibility can appropriately be made until we know of the State's plans to resolve this question.

State Response

I am well aware of the problems involved with updating "Regulations for Control of Radiation."

Our difficulties stem from the requirements to have regulations which are acceptable and compatible with NRC regulations and on the other hand meeting the legal requirements of state legislation as interpreted by the Attorney General's office.

The Department submitted Rule 40 for formal review to the Attorney General's office on October 7, 1981. This Rule was returned with a request to include pertinent federal regulations to the effective date of the Act which is now August 30, 1981.

The previous effective date was July 19, 1980, and the Department had included federal regulations which were in effect as of that date. We will be resubmitting these to the Attorney General's office for approval as soon as possible. This should be accomplished prior to January 1, 1982.

Present Status

The State's revised Radiological Health Regulations became effective on August 22, 1982, except for three sections which do not affect the Nebraska Agreement Program with respect to compatibility.

2. Comment and Recommendation

We recommend that more effective laboratory support be provided for the radiation control program. This comment relates to a Category II indicator, "Independent Measurements." During our review, we found that two out of the three major pieces of laboratory equipment were not operating in a satisfactory manner. This equipment problem appeared to have affected inspection activities for some period of time since independent contamination samples by State inspectors were not being fully utilized as a health and safety check during licensee inspections. In addition to an acceptable availability of operational laboratory equipment, the results of routine samples submitted for analysis should be available to the program staff within a few days so that followup action can be taken when necessary.

State Response

In regard to laboratory support for the radiation control program, this is a recent assignment of responsibilities to the Director of Laboratories.

At the present time, the Department is making efforts to obtain the resources necessary to provide adequate laboratory instrumentation to provide necessary services. One laboratory instrument has been ordered.

Present Status

As of this review, the Radiation Chemistry Laboratory provides assistance to the Division of Radiological Health. The laboratory has adequate equipment and provides the results of samples within 2 weeks.

3. Comment and Recommendation

We recommend that the State reconsider its new minimum qualifications for health physicists in the radiation control program where the educational requirements are shown as, "post high school training/coursework" in various disciplines. We do not believe that persons with this level of academic background would have adequate qualifications to make proper judgments relating to radiological health and safety associated with a licensee's use of radioactive materials or other radiation sources. We believe the basic qualifications for an individual working as a health physicist in an Agreement State regulatory program should be a bachelor's degree or equivalent in the physical and/or life sciences. This comment relates to a Category I indicator.

State Response

In response to your last recommendation concerning the State should reconsider the minimum qualifications established for health physicists in the radiation control program, the Department of Health intends to retain qualified health physicists in its radiation control program.

Present Status

This concern was addressed once again with Mr. Ellis Simmons and the situation remains unchanged at the time of the review. It is the understanding of the reviewer that the State's Merit Services Council is working with Dr. H. D. Smith on this matter.

B. Comment letter to Mr. H. E. Simmons, September 24, 1981

1. Comment and Recommendation

We are unable to make a finding of compatibility for the State's radiation control program due to a serious problem in one program area for a Category II indicator, "Updating of Regulations." This matter was indicated to you by Mr. Doda at the conclusion of our review and is discussed in a letter to Dr. H. D. Smith.

State Response

You indicated you were deferring a finding of compatibility due to delays in approval of Rule 40, Regulations for Control of Radiation.

The Department of Health submitted Rule 40, Regulations for Control of Radiation for final review to the Attorney General's office on October 7, 1981.

A letter from the Attorney General's reviewer indicates that Rule 40 does not include federal rules up to August 30, 1981, the effective date of the Radiation Control Act and returned Rule 40 for these changes.

We are making every effort to effect these changes in a timely manner and will notify you when Rule 40 is approved.

Present Status

The State's Radiological Health Regulations became effective on August 22, 1982, except for three sections which do not affect the Nebraska Agreement Program with respect to compatibility.

2. Comment and Recommendation

We recommend that all inspection reports be reviewed by a supervisor for adequacy of content and that this supervisory review be documented and dated on the inspection report. Also, inspection reports should contain a brief summary statement which gives the results of the questioning of workers and technicians concerning their operational

procedures for the use of radioactive materials. This summary should indicate whether or not the licensee's training for and monitoring of operational procedures were being followed in practice.

We recommend that each inspection report include the names and titles of individuals from the licensee's management staff with whom the inspector met during the exit meeting. Because of the importance of the exit meeting to the overall inspection, it may be desirable to also indicate in inspection reports the highest level of management having responsibility for licensed operations that was contacted for, but was unable to attend, the exit meeting. This is a way to emphasize what you indicated was the Division's policy; to include the appropriate levels of management in exit meetings, whenever possible.

State Response

The comments are being reviewed and implemented by our staff. This includes the supervisor reviewing of inspection reports and the inspection reports containing a summary of the results of communication between workers and technicians on operating procedures for use of radioactive material. We will also include in inspection reports the names and titles of the licensee's management staff with whom the inspector met during the exit meeting.

Present Status

This comment, as of this review, was also repeated and detailed in the letter to Dr. Smith. Some of the previous reviewers' comments were implemented by the State, however, not in sufficient detail. Thus, this Category II indicator was again addressed.

LEGISLATION AND REGULATIONS

Legal Authority (I)

Legal authority for radiation control in Nebraska is contained in Article 35, "Radiation Control Act," Sections 71-3501 through 71-3519 of the revised Statutes of Nebraska, 1943. Currently, there is a draft proposed Bill to amend Sections 71-2618, 71-3505, and 71-3507 of the Reissue Revised Statutes of Nebraska. (See Appendix A)

The proposed amendment will: (a) change the uses of the general fund for the program; (b) provide for radioactive material license fees and registration fees; (c) require surety bonds for radioactive waste management; (d) provide for civil penalties; (e) repeal exemptions; and (f) repeal the original sections and also Section 71-3512.

Radiation control regulatory responsibility is located in one agency in Nebraska, the Department of Health. The Director of Health advises the Governor and agencies of the State on matters relating to radiation; and coordinates regulatory activities of the State relating to radiation, including cooperation with other states and the federal government.

Status of Regulations (I)

The State has regulations essentially identical to 10 CFR Parts 19 and 20. The State's present Radiological Health Regulations became effective on August 22, 1982, except for three sections which do not affect the Nebraska Agreement Program with respect to compatibility, "X-ray in the Healing Arts," "Radiation Safety Requirements for Analytical X-ray Operations," and "Radiation Safety Requirements for Particle Accelerator Operations." They are currently being reviewed by the State Attorney General's office. It is anticipated that these sections will be in effect sometime during the first quarter of 1983.

Updating of Regulations (II)

The State's administrative procedures for adopting new regulations are as follows. The staff drafts a proposed revision and a copy is sent to NRC and other appropriate Federal agencies for early comment. The State Radiation Advisory Council then reviews and comments on the proposed revision. A copy of the proposed revision is made available to the public and other interested parties including NRC and other Federal agencies. Public announcements are made concerning its availability. A public hearing on a proposed revision is then held. If necessary, a redraft of the proposed revision is made and resubmitted to the Radiation Advisory Council for re-review. The next step is approval by the Director of Health followed by preparation of the proposed revision in proper legal form. The regulations are then sent to the Attorney General's office for a formal review of the legal aspects of the regulations. After concurrence by the Attorney General's office, they are sent to the Governor and Secretary of State for their signatures.

In the past, Nebraska has had difficulty in being able to change or amend its regulations in the recommended 3-year period and also meet the legal requirements of the State Attorney General's office. Since the last review, the Nebraska Division of Radiological Health submitted an updated and revised set of regulations to the Governor's office on May 10, 1982, which was officially filed on August 17, 1982, and was signed and in effect on August 22, 1982. The reviewer, noting the changes to the NRC regulations after May 13, 1981 (the last date changes were incorporated into the Nebraska Radiological Health Regulations), suggested that the Division begin developing revisions now to update the regulations. (The State cannot amend its regulations administratively.) A copy of the Nebraska Radiological Health Regulations is available in the Region IV Nebraska file.

ORGANIZATION

Location of Radiation Control Program Within the State Organization (II)

The Nebraska Radiation Control Program is located in the Nebraska Department of Health. An organization chart of the Department of Health is contained in Appendix B of this report. Dr. Henry D. Smith is Director of Health. Reporting to Dr. Smith is the Assistant Director of the Bureau of Health Care Administration, Mr. Lawrence Graham. Mr. Ellis Simmons, Director of the Division of Radiological Health, reports to Mr. Graham. Based upon discussions with Mr. Simmons, and in view of the organization charts, it appears that the State radiation control program is adequately located to enable it to effectively compete for support and funds.

Internal Organization of Radiation Control Program (II)

The internal organization of the Nebraska Radiation Control Program is depicted in Appendix C. Mr. Simmons provides administration and managerial support to the program. Ms. Davidson, under the supervision of Mr. Simmons, is responsible for licensing and Mr. Jablonski is responsible for inspection of radioactive material users. Given the size of the program, this organization appears to be adequate for achieving an acceptable degree of staff efficiency and providing specific lines of supervision for program management and execution of program policy. There are extensive verbal, as well as written, communications between the Lincoln headquarters office and the regional office in Omaha (where Mr. Jablonski is located). Mr. Jablonski is kept informed of procedural or inhouse activities on a weekly basis.

Legal Assistance (II)

Legal staff is assigned to the Department of Health. This legal staff is available as needed through the Department lawyer. Other legal staff is available from the State Attorney General's office.

Technical Advisory Committees (II)

The State has a Radiation Advisory Council whose members are appointed by the Governor. The list of the members is attached as Appendix D. The members currently serve indefinite terms. The Committee has been involved in reviewing proposed revisions to the State Radiation Protection Regulations. The State's members are occasionally contacted individually for technical consultation.

The State's medical advisory committee is known as the Medical Registration and Licensure Committee and functions as a subcommittee of the Radiation Advisory Council. The Division calls on the Medical Advisory Committee for advice regarding the use of radioisotopes in or on humans. The Committee has taken six actions during the review period, all of which have been resolved.

The State's procedures to avoid a conflict of interest regarding advisory committee members is to request the individual to excuse himself from participation in the item in question and to provide supportive written documentation. Mr. Simmons stated the RCP would exercise its judgement if a conflict of interest appeared to exist in any particular case. The State utilizes technical assistance from the FDA, EPA, and most frequently, the NRC.

MANAGEMENT AND ADMINISTRATION

Quality of Emergency Planning (I)

Nebraska's Radiological Emergency Response Plan, dated January 1981, provides response actions for radiological incidents.

The purpose of this plan is to:

1. Provide an effective means for responding to a radiological incident and establishing a mechanism for mitigating any consequences,

2. Provide guidance for agencies, users, licensees, and individuals in the State of Nebraska under emergency conditions, and
3. Identify the appropriate agencies and individuals to notify in case of an emergency.

Notification procedures are included in the plan. These procedures were reviewed and it was determined that they provide adequate notification and communication with appropriate government agencies, identify qualified individuals, and assure that they will be readily available through identifiable channels of communication.

The plan has been updated to include changes in radiation control program staff members. A copy of the Emergency Response Plan is available in the Region IV Nebraska file.

The State's emergency plan is a comprehensive one which is intended to cover major accidents of nuclear facilities, but it also adequately covers noncatastrophic incidents. The plan is reviewed continually to assure it is kept current. Page changes are issued as necessary. The 1981 revision did not change the agreement materials aspects of the previous issue, except to reflect staff changes.

Budget (II)

During the period of July 1, 1982 to June 30, 1983, the State's general funds provided \$177,000 for the radiation control program budget. Other sources were contracts, \$11,000; a utilities gift, \$110,824; and federal funds, \$10,000. Thus, the total funds used by the Division is \$308,824.

The radioactive materials budget is as follows: licensing - \$40,000; inspection and enforcement - \$43,000; and administration - \$8,000.

The State currently does not collect fees for radioactive materials licensing and inspection. However, a fee schedule is authorized in the proposed amendment to the Nebraska Statutes (Appendix A).

Laboratory Support (II)

The Radiation Chemistry Laboratory provides assistance to the Division of Radiological Health. The Lincoln office submits samples to the radiochemical laboratory for analysis of water, air samples, wipes, leak tests, etc. Depending on the priorities, the results are available within 2 weeks.

The Radiation Chemistry Laboratory has the following equipment:

1. Gamma analyzer with NaI and GeLi detector,
2. Low Background Beta Counter - Nuclear Chicago, 100 sample automatic counter, and
3. Liquid scintillation counter.

Administrative Procedures (II)

Copies of the State's internal guides on licensing and compliance procedures were obtained, reviewed, and identified as being complete and up to date. The staff uses license checklists and inspection check-off sheets.

Staff meetings are held approximately two to three times per month to discuss current activities in the program. Mr. Simmons also visits the Omaha office about once a month. Communication and liaison between the staff is adequate.

Press releases must be cleared with the Director of Health; however, the staff can respond to inquiries for factual information.

Management (II)

Management assigns quarterly objectives and assesses performance by review of inspection and workload data. Periodic statistical information is prepared by manual review of the license inspection files. This system is acceptable given the current size of the program. Statistical information on the program has been provided to NRC on a timely basis. Procedures are available and followed to assure timely release of information to the public, NRC, and Agreement States on matters of common interest.

Office Equipment and Support Services (II)

The current level of secretarial/clerical support is about .7 person-years. Mr. Simmons stated that there are limited clerical and secretarial services in Omaha and that services are mostly provided by the Lincoln office. Currently, professional personnel are performing minimal amounts of filing or other clerical services. Based upon reviews of selected license and compliance files, it appears that the licenses, reports, and correspondence are typed, filed, and distributed on a timely basis. The Division has a mag card typing capability. The Division uses a computer for printout and update of registration lists. Renewal notices are generated manually. At the end of each calendar year, a list of licenses due to expire the following year is prepared. Renewal notices are sent to the licensee 60 days before the expiration of the license. A log book of current licenses is maintained.

Public Information (II)

Mr. Simmons stated that all files are open to the public, except for proprietary information which may be withheld from the public in accordance with State laws.

PERSONNEL

Qualifications of Technical Staff (II)

Written position descriptions exist for all professional personnel levels. These are attached to the report as Appendix F. The Merit Services Council position description for entry level positions for health physicists in the radiation control program continues to contain educational requirements which call for "post high school training/coursework" in various disciplines. The NRC staff has commented on this aspect on several occasions, expressing the

view that the basic qualifications for an individual working as a health physicist in an Agreement State regulatory program should be a bachelor's degree or equivalent in the physical and/or life sciences.

Staffing Level (II)

The person-years effort applicable to the agreement material program is as follows:

<u>Name</u>	<u>Function</u>	<u>Staffing Effort</u>
E. Simmons	Director and Supervisor	.3 person-year
J. Davidson	Licensing	.7 person-year
L. Jablonski	Inspection	.8 person-year
		<u>1.8 person-years</u>

Based on 147 licenses in effect, the above table represents a staffing level of 1.2 person-years per 100 licenses, which meets the NRC guideline of 1.0 to 1.5 person-years per 100 licenses. The State does not have any unusually complex licensed activities such as uranium mills or commercial waste burial grounds. There is adequate supervisory guidance and direction to Division personnel.

Staff Supervision (II)

Mr. Simmons stated that there is one junior person in the program, Ms. J. Davidson, a Radiological Health Specialist I, who was previously employed as a secretary. Mr. Simmons stated that the staff is assigned to regulatory activities individually and that he initially participates in the licensing and inspection of large licensed programs. With respect to supervision of the licensing and inspection functions, Mr. Simmons stated that he reviews draft licenses and inspection reports prepared by the staff.

Duties and functions are performed by the following individuals:

1. Review licenses - Davidson and Simmons;
2. Sign licenses - Simmons;
3. Perform inspections - Jablonski and Simmons;
4. Evaluate inspector performance, sign enforcement letters, review inspection reports, perform duties in environmental surveillance, set inspection priorities, and assign inspections - Simmons;
5. Supervise junior personnel in licensing and compliance - Simmons; and
6. Emergency planning activities - Haes.

Training (II)

Mr. Simmons stated that on-the-job training and orientation for new employees includes an accompaniment of a senior health physicist on inspections, receiving and reviewing copies of appropriate manuals and regulations and receiving detailed job instruction.

Since the last review, Leo Jablonski attended two NRC sponsored courses. Mr. Jablonski has been to all NRC sponsored core courses since his employment with the Department except for the "Industrial Radiography" and "Teletherapy"

courses. Ms. Davidson has not yet attended any NRC sponsored courses. It was recommended that she attend the following: "Licensing Orientation," "Medical Procedures," and "Industrial Radiography Safety." We recommended that Mr. Jablonski attend the "Industrial Radiography Safety" and "Teletherapy Calibration" courses. Mr. Haes, once he is aboard full time, should attend similar courses if he becomes involved in the materials program.

Staff Continuity (II)

The Division experienced the loss of two technical individuals, Mr. Ken Steele and Mr. Dave Jacobson, since the last review. The reviewer recommended that the staff salary levels be monitored to ensure that they are competitive and do not become a factor adversely affecting the program's ability to attract and retain qualified staff.

Mr. Jablonski was promoted to Health Physicist by transfer from X-ray inspector to radioactive materials inspector and Ms. Davidson was promoted to Radiological Health Specialist I from a secretarial position (see resumé in Appendix K). Mr. Julius Haes, previously employed as Radiation Safety Officer at the University of Nebraska, has been added to the staff. Mr. Haes was reported to be acting as a part-time consultant to the Department of Health in emergency response and planning activities. He is expected to become a full-time staff member. At that time, he will completely sever his affiliations with the University and cease consultant activities, to avoid conflicts of interest.

The salary schedule for Radiological Health Specialists and Health Physicists is as follows:

<u>TITLE</u>	<u>HIRING RATE*</u>	<u>MINIMUM PERMANENT RATE*</u>	<u>MAXIMUM RATE*</u>
Radiological Health Division Dir.	\$1930.25	\$2026.75	\$2702.33
Health Physicist	1670.33	1753.83	2338.50
Radiological Health Specialist II	1445.42	1517.67	2023.58
Radiological Health Specialist I	1163.50	1221.67	1628.92

*Monthly rates

The salary schedule has remained the same since the last review. It provides for ingrade merit increases, but does not provide for cost of living increases except as granted by the State legislature. The salary schedule does not provide for automatic ingrade increases. Opportunities exist for promotion within the organization up to the Health Physicist position without a staff vacancy occurring.

Mr. Simmons stated that appointments to entry level positions are based upon evaluation of the training and experience of the applicants. Competitive examinations are not utilized. Mr. Simmons stated that the State Merit System is expected to recruit personnel by announcing vacancies but, in his own

experience, he has found it more effective to personally recruit personnel. In announcing vacancies, the State's personnel office uses State recruitment lists and local papers. The Division uses professional society journals.

LICENSING

Technical Quality of Licensing Actions (I)

As of November 10, 1982, there were 147 licenses in effect in the State of Nebraska. Since the last review meeting, the State has issued 13 new licenses and issued a total of 139 amendments, for a total of 152 licensing actions. The results of a review of selected license files is contained in Appendix G. In general, there were adequate bases for the licensing actions. The State performed one prelicensing visit since the last program review. The staff stated that prelicensing visits are conducted for Priority I licenses (Mertz Testing Labs) and for approximately 50 percent of all Priority II. Licensing policies and practices appeared to be consistent with those followed by the NRC. Cover letters are used by the State to transmit the license or the license amendment to the licensee.

The State has a 5-year license renewal program. During these renewals, all supporting information in the application must reflect the current scope of the licensee's program.

Adequacy of Product Evaluations (I)

The staff stated that no sealed source or device evaluations were performed since the previous review meeting.

Licensing Procedures (II)

The Division uses internal licensing guides, checklists, and policy memorandums, which are consistent with current NRC practices. License applicants are furnished copies of applicable guides and regulatory positions. The Division prepares written Nebraska versions of NRC licensing guides. Coordination of licensing actions with compliance staff is not a problem with the Nebraska program due to the small size. Preliminary review and screening of applications is normally done within a few days of receipt, but always within 30 days. License expiration notices are sent to licensees 60 days prior to expiration. The State utilizes timely renewal procedures. Licenses are issued for 5-year periods.

In general, files are maintained in a way to allow accurate retrieval of information and there was adequate documentation of discussions and visits with licensees. Licensing and compliance documents are filed in the same folder. Division personnel maintain statistical data regarding the number and types of licenses, inspection of such licenses by category, and furnish such statistical data to the NRC on a timely basis and on special request. The State uses standard license conditions similar to those used by NRC.

COMPLIANCE

Status of Inspection Program (I)

Statistical information is maintained to enable the staff and the Division Director to periodically assess the status of the inspection program. At the end of each calendar year, a listing is made of all licenses by inspection priority and category. The listing usually shows the date of last inspection and the date due for the next inspection. Any overdue inspections are to be marked on a log sheet and held in a separate file for immediate reference by the inspector.

During the period since the last review, two Priority I inspections out of nine were overdue by 7 months; 29 Priority II inspections out of 56 were overdue from 3 months to 3 years, and 17 Priority III inspections out of 82 were overdue by 1 to 3 years. It was recommended since there were 48 overdue inspections that a short-term action plan be established by management for the inspection program. This should outline priority of inspection, length of time overdue, and the date of the next inspection to be conducted.

This planning will also assist the program manager in the planning of the weekly itinerary of his staff members.

Inspection Frequency (I)

The State's current inspection priority system is shown in Appendix H. The present Nebraska inspection priority system calls for inspections at least as frequent as the NRC inspection priority system. The license reviewer is responsible for assigning licenses to the inspection priority categories. A manual recordkeeping system is utilized for identifying and scheduling licenses for inspection. The inspection priority system is designed to assure that more hazardous and complex operations are inspected more frequently. Identifying and scheduling licenses for inspection is done by Mr. Simmons and Mr. Jablonski. Mr. Simmons stated that most of the inspections conducted by the State are unannounced. Mr. Simmons also stated that the radiation control program inspects out-of-state firms working in the State under reciprocity. Out-of-state firms that are licensed by the State are required to notify the Division prior to conducting licensed activities in the State.

Inspector's Performance and Capability (I)

On October 6-8, 1982, a field accompaniment of Mr. Leo Jablonski was conducted of two industrial radiography licensees. The inspector was found to be competent to evaluate health and safety problems and to determine compliance with State regulations.

Mr. Simmons accompanied Mr. Jablonski on October 14, 1982, on an irradiator inspection (Priority I). Prior to Mr. Jacobson's leaving the Division, he also accompanied Mr. Jablonski on two Priority II inspections on April 9, 1982, and July 20, 1982.

Response to Actual and Alleged Incidents (I)

Mr. Simmons stated that incidents are investigated on a priority basis; however, telephone inquiries are made to determine the need for an immediate onsite investigation. Medical consultants are available and used when necessary including obtaining medical consultation through NRC.

During the review period, the following four incident investigations were conducted:

1. Report of shipment of low-level waste shipped to a solvent reprocessing plant at Norfolk, Nebraska, from a firm in Wichita, Kansas. Result was negative.
2. Report of lost industrial radiography source in Western Nebraska (ultimately declared a hoax call).
3. P.I.E. - Omaha - leaking barrel of ^3H - samples collected and counted for ^3H . Result was negative and case was closed on July 15, 1982.
4. Teacher at Bellevue concerned with two boxes of rocks - radioactive material labeled gamma radiation - natural uranium .5 mr/h at the surface. Case closed on 9-9-82.

The incident files were reviewed and showed adequate documentation and explained in depth the circumstances involved therein. The four cases investigated by the Division are considered closed.

The NRC is notified in cases where other States may be involved or the Nebraska Division of Radiological Health may directly discuss concerns with the other respective Agreement State. Information on incidents involving failure of equipment is provided to the respective agency responsible for evaluation of the device for an appropriate assessment of a possible generic design deficiency. In the review period, the State has not investigated any incidents that resulted from equipment failure.

Enforcement Procedures (I)

The State utilizes specific forms in the field for enforcement action. However, the review of selected compliance files (Appendix I) disclosed cases where enforcement letters were not sent to the licensee reporting inspection results. Some enforcement letters that were sent did not contain appropriate regulatory language; however, regulations and license conditions were properly referenced. There were also cases where the enforcement letters were not dispatched within the recommended 30 days of the date of the inspection. All enforcement letters were signed by Mr. Simmons. In addition, the licensee did not always respond to enforcement letters and other cases showed that the State did not acknowledge receipt of letters that were responded to by the licensee.

The reviewer commented that the State should remain consistent and adhere to their own internal enforcement procedures in all cases. The program director reviews compliance inspections, holds sessions with licensing and inspection personnel, and accompanies inspectors on field inspections. In 1982, the

Division requested NRC technical assistance in two inspections of Industrial Radiography licenses in Omaha. This assistance was given by Mr. Heyer on October 6-8, 1982.

The State has written procedures for handling escalated enforcement cases (see Appendix J). The State can impound material in accordance with their administrative procedures.

Inspection Procedures (II)

The inspection guides and policy memoranda have been used by the Division inspector on a routine basis. The inspector utilizes these guides to assure uniform and complete inspection practices. However, there were cases where the reports were not complete. The reviewer identified this concern to the inspector. The inspector uses the NRC - Agreement States Guides which have been modified and changed to incorporate applicable sections of the Nebraska Radiological Health Regulations.

All inspections are unannounced unless it would prove to be beneficial, both to the licensee and the inspector, to notify the licensee in advance; i.e., prior notification of the physician of a medical license. Procedures are in place for maintaining the licensee's compliance history using the NRC supplied sheet entitled "Enforcement History Work Form." Mr. Simmons discusses the results of the inspection with the inspector upon completion of the draft inspection report.

Due to the size of the staff, verbal communication between the licensing individual and the inspector is sufficient to establish feedback both ways.

Inspection Reports (II)

Details of the review of selected compliance files are given in Appendix I. It was noted that the reports, in some cases, did not document the entire scope of the inspection conducted. In some instances, the previous items of noncompliance were not discussed in detail. The reviewer recommended improvement in the documentation of inspection results. The reviewer stated that the reports should uniformly and adequately document the results of the inspections, document worker interviews, and indicate the substance of discussions with licensee management and the respective responses. This comment and recommendation was discussed with the inspector and addressed in the exit meeting with management.

Independent Measurements (II)

The State's practices for conducting independent measurements as part of inspections were found to be adequate. Instrumentation is readily available to the radiation control program and appeared to be adequate for surveying licensed operations. The inventory of the State's field and laboratory equipment is attached as Appendix E.

The State's procedures for calibrating instruments are adequate.

OTHER AREAS AFFECTING THE ADEQUACY OF THE
STATE'S TOTAL RADIATION CONTROL PROGRAM

Surveillance of Radiation Producing Machines

NARM material is licensed in the same manner as agreement materials. To date, there have been 290 inspections conducted by the staff. However, no inspections have been conducted since the last review. There are currently seven accelerator registrants.

The current number of X-ray registrants (1504) by category, in Nebraska is:

MD	- 301
Hospitals	- 120
Dental	- 750
Clinics	- 60
X-ray vans	- 3
Chiropractors	- 87
Veterinarians	- 83
Podiatrists	- 35
Others	- 21

Environmental Surveillance

The current environmental monitoring program includes TLD monitoring at Nuclear Power Plants (Fort Calhoun and Cooper) at 20 samples per year. The State also takes air samples and conducts gross Beta analysis each week during the year. In addition, the State collects and analyzes well and surface water samples at Hallam (24 samples per year).

LIST OF APPENDICES

- Appendix A - Proposed Changes to Statutes of Nebraska
- Appendix B - Organizational Chart - Department of Health
- Appendix C - Organizational Chart - Division of Radiological Health
- Appendix D - Radiation Advisory Council
- Appendix E - Laboratory Equipment
- Appendix F - Position Descriptions
- Appendix G - Review of Selected License Files
- Appendix H - State's Inspection Priority System
- Appendix I - Review of Selected Compliance Files
- Appendix J - Procedures for Enforcement Actions
- Appendix K - Resumé

LEGISLATURE OF NEBRASKA
EIGHTY-EIGHTH LEGISLATURE
FIRST SESSION
LEGISLATIVE BILL _____

A BILL

FOR AN ACT to amend sections 71-2618, 71-3505 and 71-3507, Reissue Revised Statutes of Nebraska, 1943, relating to the control of radiation; to change the use of a fund; to provide for radioactive material license fees and registration fees; to require a surety for radioactive waste management as prescribed; to provide for civil penalties as prescribed; to repeal an exemption; and to repeal the original sections and also section 71-3512.

Be it enacted by the people of the State of Nebraska,

Department of Health
10/6/82

APPENDIX A

Section 1. That section 71-2618, Reissue Revised Statutes of Nebraska, 1943, be amended to read as follows:

71-2618. There is hereby created in the Department of Health a cash fund to be known as the Department of Health Cash Fund. Such fund shall be used by the Department of Health for the purpose of administering those laws relating to radiation control, inspection-of environmental monitoring and radiation emergency response planning for nuclear power plants, bedding, laboratory services, private water supply and private sewage disposal facilities, recreation camps, and swimming pools administered by the department. Such fund shall also be used by the department for the purpose of receiving and expending any third party reimbursement payments, matching funds, or similar nongrant funds from any federal governmental agency, private corporation, or other public or private organization or entity, which are to be used for home health services, family planning services, health services to migrants, maternal and child health services, the provision of statistical information or technical services, and the operation of the Hall of Health at the State Fair. All such funds received shall be paid into the state treasury and by the State Treasurer credited to the Department of Health Cash Fund.

Sec. 2. That section 71-3505, Reissue Revised Statutes of Nebraska, 1943, be amended to read as follows:

71-3505. Matters relative to radiation as they relate to the public health and safety shall be a responsibility of the Department of Health. The Department shall:

(1) Develop comprehensive policies and programs for the evaluation and determination of undesirable radiation associated with the production, use, storage, or disposal of radiation sources; and formulate, adopt, promulgate and repeal rules and regulations which may provide for registration under the provisions of section 71-3507 or licensure as provided by this section or by section 71-3509, and for registration or licensure of any other source of radiation as specified by rule or regulation so as to reasonably protect the health and safety of the people of Nebraska in a manner compatible with regulatory programs of the federal government. The department for identical purposes may also adopt regulations for the issuance of licenses, either general or specific, to persons for the purpose of using, manufacturing, producing, transporting, transferring, receiving, acquiring, owning, or possessing any source of radiation or any other matter, as described in subdivision (12) of section

71-3503. Such rules and regulations may prohibit the use of radiation for uses found by the department to be detrimental to health or safety and shall carry out the purposes and policies set out in sections 71-3501 and 71-3502; Provided, that such rules and regulations shall not prohibit or limit the kind or amount of radiation purposely prescribed for or administered to a patient by doctors of medicine and surgery, dentistry, osteopathy, chiropractic, podiatry, and veterinary medicine, and engaged in the lawful practice of his profession, or administered by other professional personnel, such as x-ray technicians, nurses, and laboratory workers, acting under the supervision of a licensed practitioner. Violation of regulations adopted by the department pursuant to sections 71-3501 to 71-3519 shall be due cause for the suspension, revocation, or limitation of a license issued by the department. Any licensee may request a hearing before the department on the issue of such suspension, revocation, or limitation. Procedures for notice and opportunity for a hearing before the department shall be pursuant to the provisions of Chapter 84, article 9, and continued departmental suspension, revocation, or limitation subsequent to such a hearing shall also be subject to judicial review pursuant to such provisions;

(2) Adopt and promulgate by regulation a fee of not less than ten dollars nor more than one thousand dollars for each radioactive material license issued or renewed by the department. All radioactive material licenses shall expire on December 31, unless renewed upon payment of the fee for renewal. Any application for an amendment to a radioactive material license must be accompanied by a fee that is fifty percent of the radioactive material license fee. All fees shall be paid into the state treasury and by the State Treasurer credited to the Department of Health Cash Fund, which shall be used to partially defray the costs of administration of sections 71-3501 to 71-3519. When an applicant or licensee fails to pay the applicable fee, the department may deny, refuse renewal, suspend or revoke the radioactive material license;

~~(2)~~ (3) Inform the council of any such rules and regulations at least thirty days prior to their adoption, and consider any recommendations of the council;

~~(3)~~ (4) Have the authority to accept and administer loans, grants or other funds or gifts, conditional or otherwise, in furtherance of its functions, from the federal government and from other sources, public or private;

{4} (5) Encourage, participate in, or conduct studies, investigations, training, research, and demonstrations relating to sources of radiation;

{5} (6) Collect and disseminate health education information relating to radiation protection;

{6} (7) Make its facilities available so that any person or any agency may request the department to review and comment on plans and specifications of installations submitted by the person or agency, with respect to matters of protection and safety, for the control of undesirable radiation;

{7} (8) Be empowered to inspect radiation sources, their shieldings and surroundings for the determination of any possible undesirable radiation, or violations of rules and regulations promulgated by the department; and provide the owner, user or operator with a report of any known or suspected deficiencies; and

{8} (9) Collect a fee for each ~~inspection~~ of offsite environmental monitoring surveillance and the radiation emergency response planning for a nuclear power plant equal to the amount of completing the ~~inspection~~ surveillance and planning and any associated report. In no event shall the monthly fee for any nuclear power plant exceed ~~two~~ five thousand dollars. The fee collected shall be deposited in the Department of Health Cash Fund and shall be used solely for the purpose of defraying the costs of the ~~inspections~~ surveillance and planning conducted by the department.

Sec. 3. That section 71-3507, Reissue Revised Statutes of Nebraska, 1943, be amended to read as follows:

71-3507. (1) The department shall cause to be registered with the department such sources of radiation as the department determines to be reasonably necessary to protect the health and safety of the people of the State of Nebraska, as follows:

(a) The department shall, by public notice, establish a date on or before which date said sources of radiation shall be registered with the department, and the department shall provide appropriate forms for such registration. Each application for registration shall be in writing and shall state such information as the department by rules or regulations may determine to be necessary and reasonable to protect the public health and safety;

(b) Registration of sources of radiation shall be an initial registration with appropriate notification to the department in the case of alteration of equipment, acquisition of new sources of radiation, or the transfer, loss, or

destruction of sources of radiation and shall include the registration of persons installing or servicing sources of radiation;

(c) Failure to register sources of radiation in accordance with rules and regulations promulgated by the department shall be subject to a fine of not less than fifty dollars nor more than two hundred dollars; and

(d) ~~There shall be no fee for registration.~~ A fee of forty dollars for each source of radiation plus fifteen dollars for each additional source of radiation shall be paid as a condition of registration. Each registrant shall on or before December 31 of each year pay a fee of forty dollars for each source of radiation plus fifteen dollars for each additional source of radiation in order to maintain such registration. All fees shall be paid into the state treasury and by the State Treasurer credited to the Department of Health Cash Fund, which shall be used to partially defray the costs of administration of sections 71-3501 to 71-3519. When an applicant or registrant fails to pay the applicable fee, the department may deny, suspend or revoke the registration.

(2) The department is authorized to exempt certain sources of radiation or kinds of uses or users from the licensing or registration requirements set forth in sections 71-3501 to 71-3519 when the department makes a finding that the exemption of such sources of radiation or kinds of uses or users will not constitute a significant risk to the health and safety of the public. Violation of the regulations adopted by the department pursuant to sections 71-3501 to 71-3519 shall be due for the suspension or revocation of a registration issued by the department. Any registrant may request a hearing before the department on the issue of such suspension or revocation. Procedures for notice and opportunity for a hearing before the department shall be pursuant to the provisions of Chapter 84, article 9, and continued departmental suspension or revocation subsequent to such a hearing shall also be subject to judicial review pursuant to such provisions.

(3) Rules and regulations promulgated pursuant to sections 71-3501 to 71-3519 may provide for recognition of other state or federal licenses to the extent the department determines that such recognition will achieve the purposes and policies of sections 71-3501 to 71-3519.

(4) The department shall have the right to make such surveys or inspections of sources of radiation as the department deems necessary for the control of undesirable radiation; *Provided*, that any such survey or inspection shall be

performed at a reasonable time or with adequate prior notification by the department of the owner or user of such sources of radiation.

(5) The results of any surveys or inspections of sources of radiation conducted by the department may be withheld from public inspection if disclosure of its contents is not required in the public interest and would adversely affect the interest of a person concerned. The department shall make such reports of surveys or inspections to the owner or operator of the source of radiation, together with any recommendations of the department regarding deficiencies noted.

(6) The department shall have the right to survey or inspect again any source of radiation previously surveyed, without limitation of the number of surveys or inspections conducted on a given source of radiation, *Provided*, that the provisions of adequate notification as listed in subsection (4) of this section shall be complied with.

Sec. 4. (1) As used in this section radioactive waste management means receipt, storage and processing of radioactive wastes prior to disposal or disposal of radioactive wastes, except that the coincidental storage or processing of wastes generated solely in connection with other licensed activities by the person doing the storage or processing is not included.

(2) For activities of a licensee involving radioactive waste management, the Department of Health shall establish by regulation standards and procedures to ensure that the licensee will provide an adequate surety or other financial arrangement to permit the completion of all requirements for the decontamination, decommissioning and reclamation of sites, structures and equipment used in conjunction with such activity, in case the licensee should default for any reason in performing such requirements. The surety required by this subdivision may also ensure payment of the long term care funds required by subsection (4). Adequate sureties include bonds issued by fidelity or surety companies authorized to do business in the State of Nebraska, cash deposits, certificates of deposit, deposits of government securities, irrevocable letters or lines of credit or such other types of arrangements, but not including any arrangement which essentially constitutes self insurance.

(3) All sureties required pursuant to subsection (2) which are forfeited shall be paid to the Department of Health for deposit by the State Treasurer into the state treasury and shall be credited by the State Treasurer to the Radiation Reclamation Fund, which fund is hereby created. Such fund shall be

used by the Department of Health as necessary to complete such requirements on which licensees have defaulted.

(4) For activities involving the burial of radioactive wastes, the Department of Health shall establish by regulation standards and procedures to ensure that the licensee will make available such funds as may be necessary to provide for long term surveillance and control.

(5) The funds required by subsection (4) shall be established at such rate that interest on the sum of all funds reasonably anticipated as payable shall provide an annual amount equal to the anticipated reasonable costs necessary to maintain, monitor, and otherwise supervise and care for the sites and residual radioactive material as required in the interest of the public health, safety and environment.

(6) All funds collected by the department from licensees pursuant to subsection (4) shall be paid to the Department of Health for deposit by the State Treasurer to the Radiation Long Term Care Fund, which fund is hereby created. Such fund shall be used by the Department of Health as necessary for the continuing long term surveillance, maintenance and other care of facilities from which such funds are collected for protection of the public health, safety and environment. Notwithstanding any other provisions of this subsection, if title to and custody of any radioactive material and its disposal site are transferred to the United States upon termination of any license for which funds have been collected for such long term care, the collected funds and interest accrued thereon shall be transferred to the United States, provided, however, that such funds do not include monies held as surety where no default has occurred and the reclamation or other bonded activity has been performed.

(7) In order to provide for the proper care and surveillance of sites subject to subsection (4), the Department of Health on behalf of the State of Nebraska may acquire by gift or transfer from another government agency or private person, any land and appurtenances necessary to fulfill the purposes of this section. Any such gift or transfer is subject to approval and acceptance by the Governor.

(8) Recognizing the uncertainty of the existence of a person or corporation in perpetuity, and that ultimate responsibility to protect the public health and safety must be reposed in a solvent government, without regard to the existence of any particular agency or department thereof, all lands, buildings, and grounds acquired by the State of Nebraska under subsection (7)

shall be owned in fee simple absolute by the State of Nebraska and dedicated in perpetuity to the purposes of this section. All radioactive material received at such site and located therein at the time of acquisition of ownership by the state or thereafter becomes the property of the state.

(9) The Department of Health may by contract, agreement, lease, or license with any person or with another state agency provide for the decontamination, decommissioning, reclamation, surveillance or other care of a site subject to this section as needed to carry out the purposes of this section.

(10) In the event a person licensed by any governmental agency other than the Department of Health desires to transfer a site to the State of Nebraska for the purpose of administering or providing perpetual care, a lump sum deposit shall be made to the Radiation Perpetual Care Fund, which fund is hereby created. The amount of such deposit shall be determined by the Department of Health taking into account the factors stated in subsection (5) of this section.

(11) All state, local, or other government agencies, or subdivisions thereof, shall be exempt from the requirements of subsections (2) and (4) of this section.

Sec. 5. (1) Any person who violates any licensing or registration provision of sections 71-3501 to 71-3519 or operates without a license or registration issued pursuant to sections 71-3501 to 71-3519 when required to do so, any person who violates any term, condition or limitation of any license or registration certificate issued thereunder, or any person who violates any order issued thereunder may be subject to a civil penalty, to be imposed by the Department of Health on behalf of the State of Nebraska not to exceed five thousand dollars for each such violation. If any violation is a continuing one, each day of such violation shall constitute a separate violation for the purpose of computing the applicable civil penalty. The Department of Health shall have the power to compromise, mitigate, or remit such penalties.

(2) Whenever the Department of Health proposes to subject a person to the imposition of a civil penalty under the provisions of subsection (1) of this section, it shall notify such person in writing:

(a) setting forth the date, facts, and nature of each act or omission with which the person is charged;

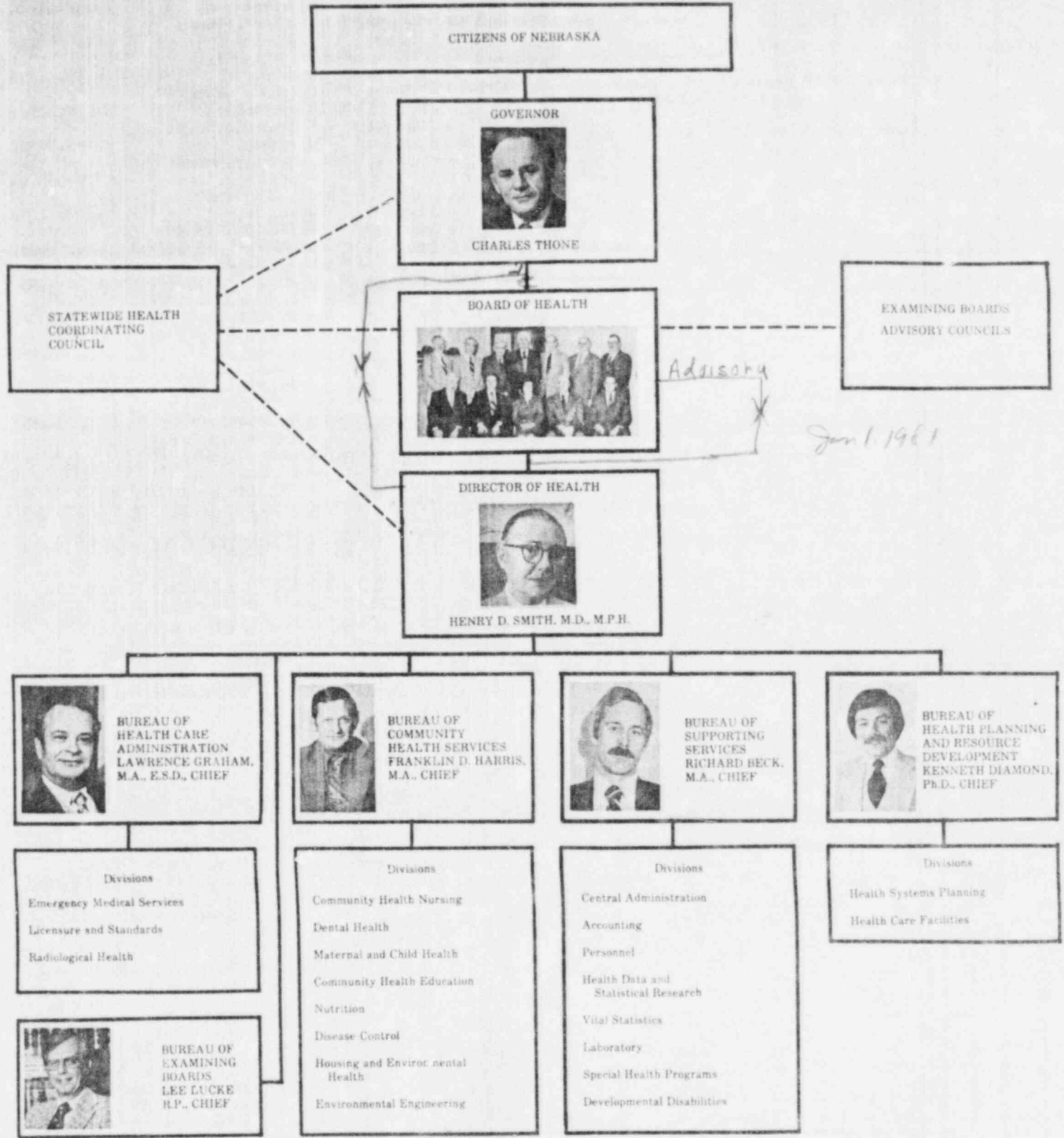
(b) specifically identifying the particular provision or provisions of the section, order, license or registration certificate involved in the violation; and

(c) advising of each penalty which the Department proposes to impose and its amount. Such written notice shall be sent by either registered or certified mail by the Department of Health to the last known address of such person. The person so notified shall be granted an opportunity to show in writing within twenty days why such penalty should not be imposed. The notice shall also advise such person that upon failure to pay the civil penalty subsequently determined by the Department of Health, if any, the penalty may be collected by civil action. Any person upon whom a civil penalty is imposed may appeal such action pursuant to the provisions of Chapter 84, article 9.

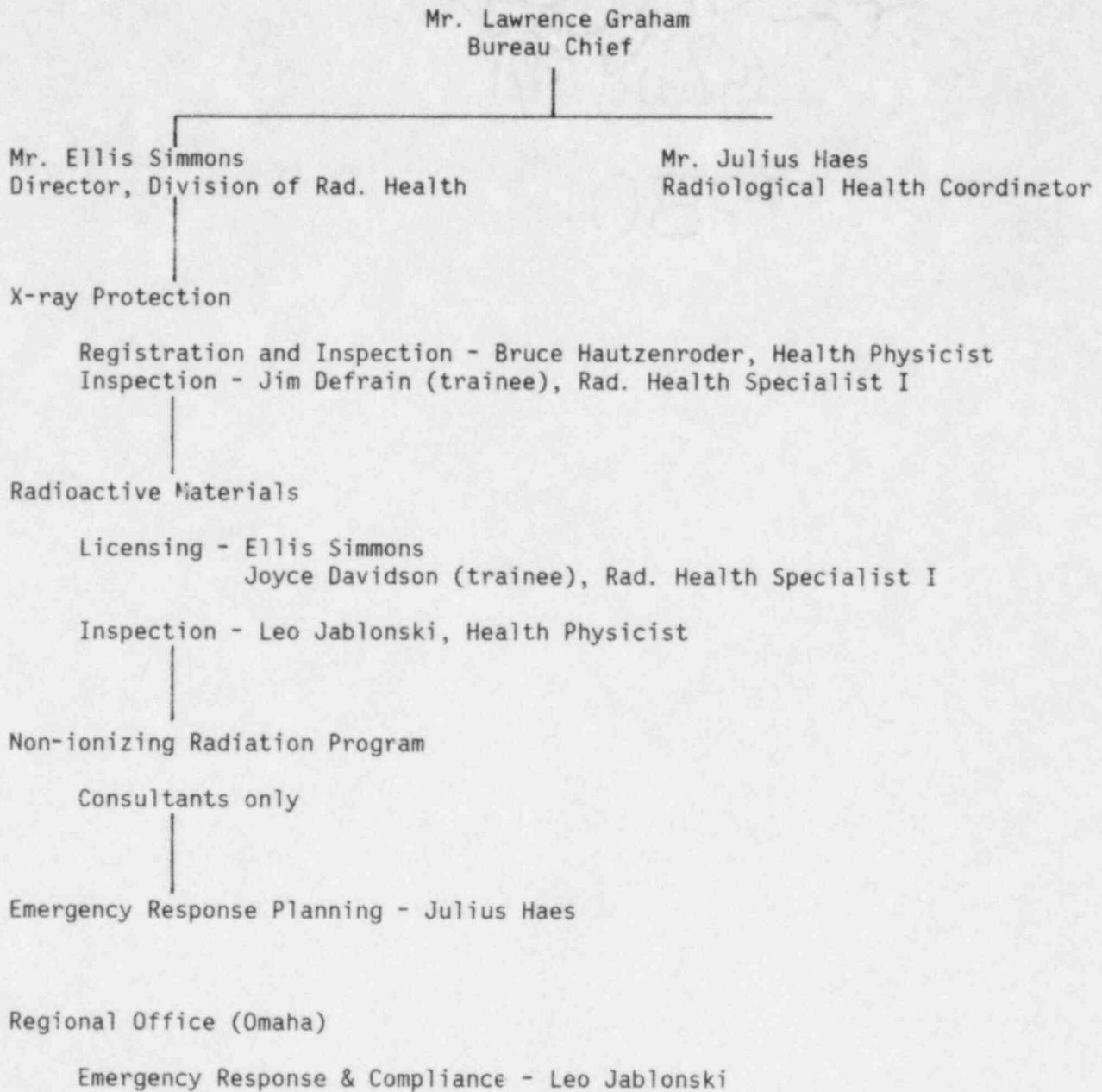
(3) Upon the request of the Department of Health, the Attorney General is authorized to institute a civil action to collect a penalty imposed pursuant to this section. The Attorney General shall have the exclusive power to compromise, mitigate, or remit such civil penalties as are referred to him for collection.

(4) All monies collected from civil penalties shall be paid to the State Treasurer for deposit in the General Fund.

Sec. 6. That original sections 71-2618, 71-3505 and 71-3507 and also section 71-3512, Reissue Revised Statutes of Nebraska, 1943, are repealed.



Internal Organization of Radiation Control Program



CHARLES THONE
GOVERNOR

HENRY D. SMITH, M.D., M.P.H.
DIRECTOR OF HEALTH



STATE OF NEBRASKA

DEPARTMENT OF HEALTH
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MEMBERS OF THE RADIATION ADVISORY COUNCIL AS OF OCTOBER 1, 1982

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Radiology

Robert A Olson
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Agriculture

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Chiropractor

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Dentistry

Kenneth H. Elson
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Grand Island, Nebraska 68801

Law

Stan Jaeger
Radiation Safety Officer
Bishop Clarkson Memorial Hospital
44th and Dewey Avenue
Omaha, Nebraska 68105

Health Physicist

vacant

Labor

EQUIPMENT

2 Radiation Monitors/Eberline
1 Geiger Counter/Ludlum
1 Thyac 2 Survey Meter/Victoreen
1 Scintillation Survey Meter/Victoreen
1 Model 440 Survey Meter/Victoreen
1 Model 488S Neutron Survey Meter/Victoreen
1 Model 130 Detector/Victoreen
2 702 Alpha Scintillation Probes/Victoreen
1 Model 154 Detector/Victoreen
1 Model 131 Detector/Victoreen
1 Radiation Counting System/Nuclear
1 Microwave Oven Survey Meter
1 Model 633 Detector/Victoreen
1 Model 326 Detector/Victoreen
1 Model 621 Detector/Victoreen
1 X-Ray Inspection Kit/Nuclear Associates Inc.
1 Model RT-1 Radiation Monitor/Eberline Instrument Corp.
1 X-Ray Survey Kit/Nuclear Associates Inc.
3 Nuclear Air Sampler/The Bendix Corporation
1 Model 70 R-Meter/Victoreen
1 Model 489-4 Beta-Gamma Probe/Victoreen
1 Model 570 R-Meter/Victoreen
1 Model 1015C X-Ray Monitor/MDH Industries, Inc.
1 Scintillation Gamma Probe/Eberline
1 Alpha-Beta-Gamma-Hand Probe/Eberline
1 Ion Chamber/MDH Industries
1 Survey Meter/Victoreen
1 Ion Chamber/MDA Industries
1 Alpha Counter/Eberline
1 X-Ray Monitor/MDH Industries
1 Alpha-Beta-Gamma Hand Probe/Eberline
1 Alpha-Beta-Gamma Detector/Eberline
1 Gamma Scintillation Probe/Eberline
1 Lin-Log Pulse/Eberline
1 TLD Reader System/Victoreen
2 Survey Meters/Panoramic/Victoreen
1 Geiger Counter/Ludlum/Model 14/Ludlum Measurements, Inc.
1 Probe/Ludlum Measurements, Inc.
1 Probe/Alnor Instrument Co.
1 Probe/Ludlum Measurements, Inc.

RADIOLOGICAL HEALTH COORDINATOR

DESCRIPTION Under administrative direction, directs the development and implementation of the State Radiation Emergency Response Plan, and coordinates radiological services with other State, local, and federal agencies, health professionals, and service organizations; performs related work as required.

EXAMPLES OF WORK (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Plans, develops, monitors, and evaluates the Nebraska Radiation Emergency Response Plan in coordination with State Civil Defense to facilitate direct access to and coordination with the State health laboratory and to ensure preparedness in handling radiation control problems.

Promotes and organizes a statewide educational program to inform professional and lay groups on hazards associated with the use of radiation sources.

Compiles data to investigate and assess the status of division radiological health programs and surveys and to determine what additional programs may be needed to promote and ensure radiological health, safety, and protection statewide.

Coordinates, discusses, and exchanges viewpoints with local, State, and federal agencies; schools; and universities to develop seminars in the science and practice of radiological health, safety, and consumer protection.

Designs and delivers talks to present and explain information regarding the department and radiological health programs.

Discusses policies and procedures with division employees to formulate and explain the department's approach to the accomplishment of program responsibilities.

Compiles, consolidates, and presents information to public meetings or legislative or administrative hearings, at the direction of the department director, to explain goals, specific program plans, and legislation in the radiological health field.

Confers with State and utility officials to develop plans and procedures for the emergency utilization of health resources.

Coordinates the work of other State, federal, and civic agencies and volunteers to comply with the overall radiological health goals, objectives, and standards established by the department.

Consults with assistant department director to discuss division programs, policies, and procedures to resolve specific administrative problems.

Researches, compiles, and illustrates data to provide interpretation and facilitate program decision making and planning by the department director.

Leads an emergency response team to respond to any radiological accident within the State.

Proposes and recommends regulations and policies related to radiological health to present guidance for the department director and the Radiation Advisory Board to review.

APPENDIX F

FULL PERFORMANCE KNOWLEDGES, ABILITIES AND SKILLS REQUIRED (These may be acquired on the job and are needed to perform the work assigned.)

Knowledge of: the principles and practices of administration as applied to government operations; department policies, procedures, and objectives related to radiological health programs.

Ability to: develop, implement, monitor and evaluate the Emergency Response Plan; organize, coordinate, and evaluate radiological health programs of organizations, governmental agencies, universities, and schools to ensure adequate radiological health, safety, and protection statewide.

ENTRY KNOWLEDGES, ABILITIES, AND SKILLS REQUIRED (Applicants will be screened for possession of these through written, oral, performance, and/or other evaluations.)

Knowledge of: the modern developments, principles, and practices of radiological health as related to the recognition, control, and elimination of radiological health hazards; state and federal laws and regulations governing the procurement, use, storage, handling, disposal, surveillance, and control of radiation sources; the principles of nuclear and atomic physics pertinent to radiological health investigations; the principles of chemistry and biology and laboratory procedures and equipment pertinent to radiological health assessments; the principles of mathematics including algebra and calculus; radiation hazards involved in the medical, industrial, and research uses of radiation and radioactive materials and the preventive measures available; the equipment and techniques used in the investigation, determination, and analysis of radiation levels.

Ability to: analyze and evaluate radiological health conditions; communicate ideas clearly and concisely, both orally and in writing with health professionals, governmental officials, and the public to exchange and provide information on radiological health programs and concerns; recognize radiological health hazards and take effective steps to eliminate associated problems; cope with radiation emergencies; analyze, prepare, present, and interpret scientific and technical reports and other documents related to radiological health and radiation control; interpret and apply radiological health laws, rules, and regulations; assess program needs and develop goals, standards, and objectives; organize and implement long and short range projects; work independently; secure the cooperation of users and providers of radiation sources; coordinate, advise on, monitor, and evaluate the activities of professional and technical staff; interact with and coordinate activities of public, private, and professional groups; interpret health hazard potential based on data collected during field studies and on reports submitted as a result of radiation detection, surveillance, and monitoring programs.

JOB PREPARATION GUIDELINES (Entry knowledges, abilities, and/or skills may be acquired through, BUT ARE NOT LIMITED TO, the following coursework/training and/or experience.)

Post high school coursework/training in: radiological health, physical or life sciences or nuclear technology AND experience in a radiological health program including responsibility for: investigating and evaluating radiological health hazards and planning radiation safety programs; consultation with and provision of technical assistance and information to users of radiological materials and/or equipment; or monitoring and instructing laboratory or other personnel in the proper handling, storage, use, and disposal of radioactive materials.

SPECIAL NOTE Subsequent training available through federal agencies makes a bachelors degree or its equivalent in one of the above areas highly recommended.

STATE OF NEBRASKA
RADIOLOGICAL HEALTH SPECIALIST I

DEFINITION

Under immediate supervision, learns to perform and performs technical duties associated with radiological health programs including inspections of x-ray machines and collection of samples for radiological analysis; performs related work as required.

EXAMPLES OF WORK PERFORMED (Any one position may not perform all the duties listed nor do the listed examples include all the duties which may be performed in positions allocated to this job class.)

Inspects facilities that use radiation producing equipment, such as x-ray equipment, to determine adequacy of radiation shielding and compliance with radiological health regulations.

Recommends changes in equipment usage and operating procedures to reduce radiation exposure for equipment operators and patients.

Collects and conducts laboratory and counting work on radioactive levels in air, water, milk, and other selected samples to determine environmental levels of radiation.

Measures radiation levels with appropriate survey and counting instruments.

Prepares inspection and data reports and summaries.

Attends seminars and specialized courses to maintain and improve proficiency of the techniques of radiological investigations and assessments.

Calibrates and services radiological detection instrumentation.

Serves as an Emergency Response Team member to respond to any radiological accident within the state.

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AFTER APPOINTMENT
(The knowledges, abilities, skills, and/or personal characteristics listed below are necessary to perform the work assignments of this class, and may typically be acquired after being hired.)

Knowledge of: the principles and practices of radiological health pertinent to control and elimination of radiological health hazards; the equipment and techniques used in the investigation and determination of radiation levels; the rules and regulations governing the use of radioactive materials and radiation producing equipment; the operation of radiation producing equipment.

Ability to: recognize, locate, and identify radiation health hazards.

MINIMUM QUALIFICATIONS

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AT ENTRY (The following knowledges, abilities, skills, and/or personal characteristics are required of persons when they are hired. Written, performance, or oral examinations and/or an evaluation of education and experience may be used to evaluate applicants' relative possession of these knowledges, abilities, skills, and/or personal characteristics.)

Knowledge of: the principles of mathematics to include algebraic and calculus calculations.

Ability to: acquire the knowledges and techniques related to radiation detection, rules, and regulations governing radiation sources and facilities, and inspection of facilities using radiation detection equipment; make decisions based upon technical understanding of radiological health oriented State and Federal laws, rules, and regulations; communicate orally and in writing with individuals and groups; interact with agency staff, representatives of facilities using radiation materials and equipment, other governmental officials, and the public to establish and maintain work relationships.

EDUCATION AND EXPERIENCE (The knowledges, abilities, skills, and/or personal characteristics in this section may be acquired through, but are not limited to, the following combination of education and/or experience.)

Post high school coursework/training in: radiological health, physical, or life sciences, occupational or health safety, or nuclear or x-ray technology.

SPECIAL NOTE

Subsequent training available through federal agencies makes a Bachelor's degree or its equivalent in one of the above areas highly recommended.

Overnight and/or regular day travel outside of the city of residence is required of incumbents in this job class.

STATE OF NEBRASKA
RADIOLOGICAL HEALTH SPECIALIST II

DEFINITION

Under general supervision, performs radiological health assessments of radioactive materials or radiation producing devices including the inspection and control of radiation and the investigation of unusual occurrences of radiation; performs related work as required.

EXAMPLES OF WORK PERFORMED (Any one position may not perform all the duties listed nor do the listed examples include all the duties which may be performed in positions allocated to this job class.)

Inspects radiation producing equipment to determine the adequacy of radiation shielding and to evaluate the radiation exposure of operators, patients, or others in the immediate vicinity.

Interviews and observes operating staff regarding their compliance with regulations in the use of radiation and the procedures used in operating radiation producing equipment.

Provides training, consultation, and technical advice to users and interested parties on radiological health matters including environmental surveillance, medical and industrial x-ray usage, radioisotope usage, and waste disposal.

Interprets and applies State and Federal laws, rules, and regulations regarding the use of radiation and the standards for protection against radiation exposure.

Analyzes radioisotopes in a radio-chemical laboratory to quantify radioactivity and to record results.

Reviews license applications and prepares licenses for applicants including educational, industrial, and medical users, based on established standards of radiation safety.

Investigates registered and licensed radiation installations to evaluate hazards associated with the use of radiation sources.

Evaluates contamination and concentration of radioactive materials and to formulate a basis for recommending decontaminating measures.

Prepares inspection reports and correspondence containing information for compliance with appropriate laws, rules, and regulations to minimize exposure of employees and the public to radiation.

Operates and adjusts radiation detection instruments to identify radiation hazards and to calibrate and service all types of radiation instruments.

Attends meetings, conferences, seminars, and specialized courses to maintain and improve proficiency in the techniques of radiological investigations and assessments.

Analyzes radiological health data obtained, through the collection and laboratory analysis of samples to, provide findings for report preparation.

Serves as an Emergency Response Team member to respond to any radiological accident within the state.

RADIOLOGICAL HEALTH SPECIALIST II (Continued)

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AFTER APPOINTMENT
(The knowledges, abilities, skills, and/or personal characteristics listed below are necessary to perform the work assignments of this class, and may typically be acquired after being hired.)

Knowledge of: the techniques of radioactive waste disposal.

Ability to: cope with radiation emergencies; analyze plans, specifications, and other documents related to radiation control.

MINIMUM QUALIFICATIONS

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AT ENTRY (The following knowledges, abilities, skills, and/or personal characteristics are required of persons when they are hired. Written, performance, or oral examinations and/or an evaluation of education and experience may be used to evaluate applicants' relative possession of these knowledges, abilities, skills, and/or personal characteristics.)

Knowledge of: Federal and State laws, rules, and regulations governing the use of radiation; the properties and biological effects of radiation; the procedures of radiation detection, instrumentation and measurement; the kinds and operations of radiation producing equipment; the operation and calibration of radiation laboratory and monitoring equipment; the principles of mathematics to include algebraic and calculus calculations; the principles of chemistry pertinent to radiological health assessments; the principles of physics pertinent to radiological health investigations; the principles of biology pertinent to radiological health assessments; the principles and practices of radiological health as they relate to the recognition, control, and elimination of radiological health hazards.

Ability to: recognize, locate, and identify radiation health hazards; make decisions based upon technical understanding of State and Federal laws, rules, and regulations; communicate orally and in writing with individuals and groups; prepare and analyze technical reports, and facility and environmental studies; interact with agency staff, other public officials, and the public to establish and maintain work relationships; interpret and apply State and Federal laws, rules, and regulations; service and calibrate radiation detection instruments; plan, organize, and schedule the details of inspection projects.

EDUCATION AND EXPERIENCE (The knowledges, abilities, skills, and/or personal characteristics in this section may be acquired through, but are not limited to, the following combination of education and/or experience.)

Post high school coursework/training in: radiological health, physical, or life sciences, occupational or health safety, or nuclear or x-ray technology, AND experience in conducting technical activities in a radiological program such as: collecting and analyzing samples for radioactivity levels; operating radiation survey and counting instruments; servicing and calibrating radiation detection instruments; or inspecting facilities using radioactive materials and/or equipment.

SPECIAL NOTE

Subsequent training available through federal agencies makes a Bachelor's degree or its equivalent in one of the above areas highly recommended.

Overnight and/or regular day travel outside of the city of residence is required of incumbents in this job class.

STATE OF NEBRASKA

HEALTH PHYSICIST

DEFINITION

Under limited supervision, performs radiological health and safety work involving the detection, investigation, analysis, evaluation, and control or elimination of radiation potentially hazardous to health, and participates in the resolution of radiological health problems in a regulatory, educational, and consultative radiological health program; performs related work as required.

EXAMPLES OF WORK PERFORMED (Any one position may not perform all the duties listed nor do the listed examples include all the duties which may be performed in positions allocated to this job class.)

Plans, implements, and directs an assigned area of a comprehensive state-wide radiation control program to enforce State and Federal laws, rules, and regulations.

Reviews applications for licenses, renewals, and amendments for use of radioactive material by radioactive materials users such as hospitals, universities and private physicians to determine if radioactive material can be used in a safe and controlled environment.

Inspects radioactive material licensed facilities for compliance with State radiological health regulations, U.S. Department of Transportation regulations, conditions of each license, and procedures contained in license applications and correspondence.

Issues licenses in accordance with radiological health regulations, Nuclear Regulatory Commission and Agreement State licensing practices, and legal interpretations.

Evaluates actual performance of the licensees' operation to determine aspects of health and safety.

Issues violation notices and evaluates corrections made.

Evaluates requests of out-of-state licenses to perform services in Nebraska under reciprocity agreements.

Provides information, technical assistance, and consultation to licensees and interested parties on regulations, general radiation safety, and non-ionizing radiation sources.

Evaluates plans for new x-ray facilities in regard to shielding and radiation safety practices.

Services air sampling equipment and radiation monitoring equipment used for emergency response and continuous monitoring at nuclear power plants.

Calibrates radiological survey equipment.

Serves as an Emergency Response Team leader to monitor any release within the state of radioactive material to the environment.

Investigates instances involving radioactive materials where a possible personnel overexposure may have occurred.

Conducts x-ray inspections.

Trains new agency staff in the areas of dental and medical x-ray inspection, emergency response, environmental surveillance, radioactive material licensing and inspections, and procedures for inspection and enforcement of the radiological health regulations.

HEALTH PHYSICIST (Continued)

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AFTER APPOINTMENT
(The knowledges, abilities, skills, and/or personal characteristics listed below are necessary to perform the work assignments of this class, and may typically be acquired after being hired.)

Knowledge of: the practices and procedures of planning and implementing radiological health program activities.

Ability to: direct and coordinate radiological health activities.

MINIMUM QUALIFICATIONS

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AT ENTRY (The following knowledges, abilities, skills, and/or personal characteristics are required of persons when they are hired. Written, performance, or oral examinations and/or an evaluation of education and experience may be used to evaluate applicants' relative possession of these knowledges, abilities, skills, and/or personal characteristics.)

Knowledge of: the principles and practices of radiation protection; State laws, rules, and regulations governing the procurement, use, storage, handling, disposal, surveillance, and monitoring of radiation sources; the principles of physics pertinent to radiological health investigations; the principles of chemistry pertinent to radiological health assessments; the principles of biology pertinent to radiological health assessments; the principles of mathematics to include algebraic and calculus calculations; the medical, industrial, and research uses of radiation and radioactive materials; the practices of nuclear and atomic physics pertinent to radiological health investigations; the equipment and techniques used in the investigation, detection, and analysis of radiation levels.

Ability to: determine health hazard potentials from data collected during field studies and from the reports submitted as a result of radiation measurement, surveillance, and monitoring programs; prepare reports containing findings, conclusions, and recommendations in the field of radiation control; cope with radiation emergencies; analyze and interpret reports, plans, specifications, and other documents related to radiation control; communicate orally and in writing with individuals and groups; interact with agency staff, other public officials, and the public to establish and maintain work relationships; interpret and apply radiological health oriented State and Federal laws; rules, and regulations; service and calibrate radiation detection instruments; plan and direct a specific program area.

EDUCATION AND EXPERIENCE (The knowledges, abilities, skills, and/or personal characteristics in this section may be acquired through, but are not limited to, the following combination of education and/or experience.)

Post high school coursework/training in: radiological health, physical, or life sciences, occupational or health safety, or nuclear technology, AND experience in a radiological program which included: investigating and evaluating radiological hazards, analyzing radiological data, consulting with and providing technical assistance to users of radiological materials and/or equipment, and preparation of reports

SPECIAL NOTE

Subsequent training available through Federal agencies makes a Bachelor's degree or its equivalent in one of the above areas highly recommended.

Overnight and/or regular day travel outside the city of residence is required of incumbents in this job class.

STATE OF NEBRASKA
RADIOLOGICAL HEALTH DIVISION DIRECTOR

DEFINITION

Under administrative direction, plans, develops, implements, and directs the statewide radiological health program, and supervises professional and technical staff engaged in the detection, examination, and evaluation of radiation potentially hazardous to health; performs related work as required.

EXAMPLES OF WORK PERFORMED (Any one position may not perform all the duties listed nor do the listed examples include all the duties which may be performed in positions allocated to this job class.)

Plans, initiates, directs, and coordinates a radiological health program for the State including the review and survey of licenses and registrants of radiation equipment and radioactive materials to enforce the Radiation Control Act and radiological health regulations.

Identifies present and potential radiological health problems from inspections and surveys to provide technical guidance on the control and/or elimination of radiological health hazards.

Prepares legislation, rules, and regulations in the field of radiological health and consults with appropriate groups and individuals about their contents.

Reviews the results of surveillance programs to determine the extent of radioactive contamination of air, food, water, and other materials.

Participates in meetings and conferences with local officials, representatives of professional groups, industry and governmental representatives in regard to radiological health.

Prepares and presents informational and educational material for public groups, news media, and other interested groups.

Confers with representatives of the U.S. Nuclear Regulatory Commission and other Federal officials on the management of an Agreement State program for radioactive materials and on the radiological health related matters.

Coordinates activities of the State's Radiation Advisory Council.

Directs the development and implementation of the State's Radiation Emergency Response Plan.

Reviews agency record keeping practices to ensure the maintenance of licensees' and registrants' records.

Prepares reports and correspondence and supervises the collection of publications and information materials.

Evaluates and modifies radiological health program standards and practices to make and implement recommendations on proposed changes or new procedures.

RADIOLOGICAL HEALTH DIVISION DIRECTOR (Continued)

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AFTER APPOINTMENT (The knowledges, abilities, skills, and/or personal characteristics listed below are necessary to perform the work assignments of this class, and may typically be acquired after being hired.)

Knowledge of: the principles and practices of administration as applied to government operations.

Ability to: plan, direct, and execute a statewide radiological health program; develop solutions to radiological health problems to protect the public.

MINIMUM QUALIFICATIONS

KNOWLEDGES, ABILITIES, SKILLS, AND PERSONAL CHARACTERISTICS REQUIRED AT ENTRY (The following knowledges, abilities, skills, and/or personal characteristics are required of persons when they are hired. Written, performance, or oral examination and/or an evaluation of education and experience may be used to evaluate applicants' relative possession of these knowledges, abilities, skills, and/or personal characteristics.)

Knowledge of: the principles of radiological health as related to the recognition, control, and elimination of radiological health hazards; the equipment and techniques used in the investigation, determination, and analysis of radiation levels; State and Federal laws and regulations governing the use and control of radiation; the principles of physics pertinent to radiological health investigations; the principles of chemistry pertinent to radiological health assessments; the principles of biology pertinent to radiological health assessments; the principles of mathematics to include algebraic and calculus calculations; the medical, industrial, and research uses of radiation and radioactive materials; the practices of nuclear and atomic physics pertinent to radiological health investigations.

Ability to: plan and direct programs; analyze and evaluate conditions; communicate orally and in writing ideas and information; recognize radiation health hazards; interact with agency staff and subordinates, other public officials, private-sector groups, and the public; plan, organize, and supervise the work of subordinates; plan the working details of state-wide projects; cope with radiation emergencies; analyze and interpret reports, plans, specifications, and other documents related to radiation control; interpret and apply radiological health oriented State and Federal laws, rules, and regulations.

EDUCATION AND EXPERIENCE (The knowledges, abilities, skills, and/or personal characteristics in this section may be acquired through, but are not limited to, the following combination of education and/or experience.)

Post high school coursework/training in: radiological health, physical, or life sciences, occupational or health safety, or nuclear technology, AND experience in a radiological health program which included: the investigation and evaluation of radiological health hazards, reviewing plans and specifications for compliance with radiation use and control standards; planning of radiation safety programs; and consultation with and provision of technical assistance and information to users of radiological materials and/or equipment.

SPECIAL NOTE

Subsequent training available through federal agencies makes a Bachelor's degree or its equivalent in one of the above areas highly recommended.

LICENSE FILE REVIEW

1. Licensee: West Nebraska General Hospital
Address: 4021 Avenue B, Scottsbluff, Nebraska 69361
License Number: 21-01-04 - (Amend. No. 3 lic. renewed in entirety --> Amend. No. 5)
Date of Issuance: December 16, 1981 (Amend. No. 3)
Expiration Date: December 31, 1986
License Type: Teletherapy (Priority II)
2. Licensee: University of Nebraska
Address: 42nd and Dewey Avenue, Omaha, Nebraska 68105
License Number: 01-50-04
Date of Issuance: July 29, 1982
Expiration Date: July 30, 1987
License Type: Pacemaker (Priority II)
- *3. Licensee: Lutheran Memorial Hospital
Address: 2116 Faidley, Grand Island, Nebraska 68801
License Number: 08-03-01 (Amend. No. 13 renewed in entirety)
Date of Issuance: June 23, 1982
Expiration Date: June 30, 1987
License Type: Nuclear Medicine (Priority II)
4. Licensee: NL Petro-Log, Inc.
Address: 6101 West 10th Street, Great Bend, Kansas 67530
License Number: 48-03-01
Date of Issuance: January 5, 1982
Expiration Date: January 31, 1987
License Type: Well Logging (Priority II)
5. Licensee: West Nebraska General Hospital
Address: Department of Nuclear Medicine
License Number: 21-01-03 (Amend. No. 11 renewed in entirety --> Amend. No. 13)
Date of Issuance: November 23, 1981
Expiration Date: November 30, 1986
License Type: Nuclear Medicine (Priority II)
6. Licensee: Mary Lanning Memorial Hospital
Address: 715 North St. Joseph Avenue, Hastings, Nebraska 68901
License Number: 14-03-02 (Amend. No. 5 renewed in entirety)
Date of Issuance: December 16, 1981
Expiration Date: November 30, 1986
License Type: Teletherapy (Priority II)

*Note that Schedule 3, "Grps. of Med. Use of Rad. Material," is attached as an enclosure to all Nuc. Med. licenses only because a copy of the correct set of Nebraska Regulations were not available.

7. Licensee: Platte Pipeline Company
Address: P. O. Box 120, Casper, Wyoming
License Number: 60-01-01 (new --> Amend. No. 1 1/5/82)
Date of Issuance: December 16, 1981
Expiration Date: December 31, 1986
License Type: Density Gauge

8. Licensee: Pathology Medical Services, P.C.
Address: 56th and "O" Streets, Suite 203, Lincoln, Nebraska
License Number: 02-08-01
Date of Issuance: August 7, 1981
Expiration Date: May 31, 1986
License Type: Nuclear Medicine

9. Licensee: Nebraska Testing Laboratories, Inc.
Address: 4453 South 67th Street, Omaha, Nebraska 68106
License Number: 01-22-01 (--> Amend. No. 16 1/22/82)
Date of Issuance: August 11, 1980
Expiration Date: July 31, 1985
License Type: Industrial Radiographer (Priority I)

10. Licensee: Mertz Testing and Inspection, Inc.
Address: 13620 "C" Street, Omaha, Nebraska 68144
License Number: 01-51-01 (--> Amend. No. 2 7/22/82)
Date of Issuance: December 16, 1981
Expiration Date: December 31, 1986
License Type: Industrial Radiography

LICENSE FILE REVIEW

COMMENTS	1	2	3	4	5	6	7	8	9	10
Training should be more detailed in the application for the individuals working with or in the vicinity of radioactive materials.	X					X				
License does not have standard license condition for the molybdenum generator breakthrough test (ref. Std. L.C. 63).*			X		X					
The procedures identifying the preparation for tagging cold kits was not identified. (ref. R.G. 10.8).			X							
Specific emergency response procedures were very thin.						X				
Training outline in the manual submitted by applicant is very thin with respect to RSO and Radiographer training.										X

*The letter to the State Health Officer offers a recommendation to incorporate the molybdenum generator breakthrough test standard license condition into radiopharmacy licenses. However, the correction should be to incorporate this standard license condition into nuclear medicine licenses.

Radioactive Material License Inspection Priority

<u>STATE (NE)</u>		<u>NRC</u>	
Priority I (Inspections Annually)	<u>Category</u>	<u>Priority</u>	<u>Inspec. Frequency</u>
Industrial Radiography	C, C1	II	1 year
Irradiators	E.2	VI	10 years
Distributors	B	I	1-2 years
Type A Broad Scope Academic	F1A	III	2 years
Priority II (Inspections Every 3 Years)			
Nuclear Medicine	G	IV	3 years
Pacemaker	G	IV	3 years
Teletherapy	G3	V	10 years
Brachytherapy	G	IV	3 years
Well Logging	E	IV	3 years
Field Tracer	H	IV	3 years
Priority III (Inspections Every 5 Years)			
Educational	F	VI	10 years
Calibration Sources	K	VII	5%/year
Industrial Gauges - Inplant	K	VII	5%/year
Industrial Gauges - Field	K	VII	5%/year
Gas Chromatographs	E.2	VI	10 years
Other Licenses	K	VII	5%/year

REVIEW OF SELECTED COMPLIANCE FILES

1. Licensee: Atomic Energy of Canada, Ltd. (Irradiator)
Address: Ottawa, Ontario, Canada
License No.: 99-37-01 (issued: November 2, 1978, exp: November 1, 1982)

It was understood upon discussion with Mr. Simmons that this particular licensee was authorized to operate (load the irradiator) at two locations in Nebraska; Becton, Dickenson, and Company at Broken Bow, and Sherwood Medical of Norfolk. It was also understood that the Department is notified every time the loading occurs. The Department has observed this process, but never documented this nor conducted an inspection to date.

Thus, it was recommended, since loading occurs at least once a year, that the licensee be inspected immediately according to NRH policy for Priority I inspection.

2. Licensee: Ecological Analyst, Inc. (Field Tracer Studies)
Address: Great Plains Regional Office, Lincoln, Nebraska 68528
License No.: 02-23-01
Inspector: Ken Steele
*Report Date: 8-20-80
Signed by: Report not signed
Type of Report: Summary
Report Reviewed by: No signature signifying management review
"591" Form Used: Yes
Enforcement Letter Date: August 28 1980; signed by E. Simmons
Date of Licensee Response: No response for cited N/C (2)
Date of State Acknowledgement: None documented and no followup
Type of Inspection: Unannounced
3. Licensee: Bryan Memorial Hospital (Nuclear Medicine)
Address: 4848 Sumner Street, Lincoln, Nebraska 68506
License No.: 02-16-01
Inspector: Ken Steele
Report Date: July 8, 1981
Signed by: Not signed
Type of Report: Form NRH-8 (Detail, rev. 12-67)
Report Reviewed by: No signature signifying management review
"591" Form Used: Yes, NRH-8
Enforcement Letter Date: July 14, 1981
Date of Licensee Response: August 12, 1981
Date of State Acknowledgement: August 18, 1981
Type of Inspection: Announced

*A new license was granted on September 24, 1980, with no documentation of corrected N/C items cited on August 28, 1980.

4. Licensee: Stauffer Chemical (Moisture Gauge)
Address: 4111 South 11th Street, Omaha, Nebraska 68107
License No.: 01-25-01
Inspector: Dave Jacobson
Report Date: April 4, 1982
Signed by: Dave Jacobson
Type of Report: Form NRH-10 (Rev. 3-75)
Report Reviewed by: No signature signifying management review
"591" Form Used: Yes, NRH-10
Enforcement Letter Date: None
Date of Licensee Response: None
Date of State Acknowledgement: None
Type of Inspection: Not identified

5. Licensee: American Red Cross Blood Services (Invitro Nuclear Medicine)
Address: Midwest Region, Omaha, Nebraska 68105
License No.: 01-32-01
Inspector: Thomas Young, David Jacobson
Report Date: July 7, 1978
Signed by: Not signed by inspector
Type of Report: Form NRH-10 (Rev. 3-75)
Report Reviewed by: ?
"591" Form Used: Yes, NRH-10
Enforcement Letter Date: No items of N/C found
Date of Licensee Response: N/A
Date of State Acknowledgement: N/A
Type of Inspection: Unannounced

6. Licensee: Colin B. Scheck, M.D. (Brachytherapy)
Address: 410 South Seattle Creek Road, Omaha, Nebraska 68105
License No.: 01-46-01
Inspector: Thomas Young, David Jacobson
Report Date: July 21, 1978
Signed by: Not signed by inspector
Type of Report: Summary (No std. checklist)
Report Reviewed by: ?
"591" Form Used: ?
Enforcement Letter Date: N/A (No N/C cited)
Date of Licensee Response: N/A
Date of State Acknowledgement: N/A
Type of Inspection: Announced

7. Licensee: Archbishop Bergan Mercy Hospital (Pacemaker)
Address: 7500 Mercy Road, Omaha, Nebraska 68124
License No.: 01-09-03
Inspector: Simmons, Young
Report Date: March 23, 1976
Signed by: ?
Type of Report: NRH-10
Report Reviewed by: ?
"591" Form Used: ?
Enforcement Letter Date: N/A (No N/C cited)
Date of Licensee Response: N/A
Date of State Acknowledgement: N/A
Type of Inspection: Announced

8. Licensee: Dale Electronics (Distributor)
Address: P. O. Box 609, 1122-23rd Street, Nebraska 68601
License No.: 10-02-01
Inspector: Leo Jablonski
Report Date: October 20, 1982
Signed by: ?
Type of Report: Form NRH-8 (Rev. 12/67, "Lic. Comp. Insp. Notes")
Report Reviewed by: Ellis Simmons, but not signed
"591" Form Used: ?
Enforcement Letter Date: November 8, 1982
Date of Licensee Response: Pending
Date of State Acknowledgement: Pending
Type of Inspection: Unannounced

9. Licensee: Sherwood Medical (Irradiator)
Address: Norfolk, Nebraska
License No.: 07-02-01
Inspector: Leo Jablonski, Ellis Simmons
Report Date: October 14, 1982
Signed by: Not signed (Only the enforcement letter)
Type of Report: Modified form RH-8
Report Reviewed by: E. Simmons
"591" Form Used: ?
Enforcement Letter Date: October 29, 1982
Date of Licensee Response: Pending
Date of State Acknowledgement: Pending
Type of Inspection: Unannounced

COMPLIANCE FILE REVIEW

COMMENTS	1	2	3	4	5	6	7	8	9
Licensee's emergency procedures not documented						X			X
Previous items of N/C not checked			X						
Lack of worker interviews or documentation									X
License was overdue for inspection		X			X	X	X		
No indication of signature on report by inspector or indication of a management review conducted		X	X	X	X	X	X		
Unclear documentation of scope of the inspection conducted		X					X		
No documentation of an enforcement letter having been issued				X					
Type of inspection conducted was not clearly defined				X					
No independent measurements conducted		X						X	X
No documentation of licensee response to cited noncompliance items			X		X				

Procedures for Enforcement Actions of Rules and Regulations

COPY

The policy for enforcement of rules and regulations is as follows:

The Division has the right to inspect any license or registrant at a reasonable time (office hours). The Division may inspect at other times providing adequate prior notification has been made to the owner or user of such sources of radiation.

The results of any surveys or inspections of sources of radiation conducted by the Department shall be withheld from public inspection unless disclosure is approved by the Division Director as in the public interest.

Prior to making an inspection, the owner or user is informed that the Department is there to inspect the licensee's or registrant's facility. Briefly inform the licensee or registrants the purpose of the inspection, time involved, assistance needed. Do not interfere with their daily routine if at all possible. The Department is there to provide a service, information, and to enforce the rules and regulations. Give the licensee or registrants a brief summary of the results of the inspection. The results may be left by completing an inspection result form if the items of noncompliance are minor, or they may be sent by form letter.

It is necessary that we request the licensee or registrant to respond within a certain time frame on how and when they will be in compliance with the regulations (usually 30-days).

If health and safety are a factor, more immediate action may be necessary.

The Department needs assurance that the licensee or registrant complies with the regulations by means of corrected deficiencies; therefore, the best judgment of the health physicist will be used to determine if a reinspection is needed to determine compliance.

ESCALATED ENFORCEMENT ACTION PROCEDURES

- A. For those licensees or registrants whose compliance problems are significant, such as failure to comply with rules or regulations, the health physicist will arrange an informal hearing (management conference).

The Director of the Division or his designate may assist the health physicist as needed.

- B. Radiation sources may be impounded by the health physicist only on approval by the Director. Justification for impoundment of sources must relate to radiation health and safety. Impoundment may be securing of sources, such as removal from license or registrant, placing under lock and key, or seize and hold under custody of law. Justification for impoundment must be health and safety of people placed in jeopardy or a significant probability that detrimental health effects will result from radiation exposure.
- C. The Department of Health is not authorized to levy civil penalties.
- D. Licenses may be modified by regulation Section C.50 (Rule 40, Subsection (3)(c)) for health and safety reasons by the Director of the Division of Radiological Health to require new conditions of the licensee to properly manage health and safety.
- E. Licenses may be suspended by the Director for violation of regulation Section C.50 (Subsection (3)(x), Rule 40) for failure to comply with conditions of the license or of a regulation.
- F. Licenses may be revoked officially by the Director for gross negligence of the licensee; when licensee does not manage licensed material, or when health and safety are a factor.

All of the above may be accomplished by written order of the Director for just cause as provided by Nebraska's Radiation Control Act.

The Director of Health shall be kept informed and shall make the final decision and sign any actions concerning orders.

Registrants are likewise subject to orders to cease and desist.

Any violation of orders requires a county attorney or the attorney general to file application to District Court enjoining such acts or practices by a permanent or temporary injunction, restraining order or other order.

- G. Violations of provisions of the Nebraska Radiation Control Act shall be grounds for the court on conviction to fine the licensee or registrant.

RESUME

A. Vital Statistics

Joyce Davidson
4631 Claire Avenue Apt. 5
Lincoln, Nebraska 68516
(402) 483-2310

B. Educational History

University of Nebraska - Lincoln, Nebraska
Attended September 1965 - June 1967

Lincoln Southeast Jr. & Sr. High School - Lincoln, Nebraska
Attended September 1959 - June 1965

C. Work Experience

State of Nebraska Department of Health
Division of Radiological Health
301 Centennial Mall South
P.O. Box 95007
Lincoln, Nebraska 68509

October 1974 thru Present
Employer: H. Ellis Simmons, Director
Division of Radiological Health
Title: Secretary I

Job consists of being Secretary to Mr. Simmons and four staff members. Supervise part time clerical person. Transcribe dictation. Compose and type letters from notes or oral or written instructions. Type and route letters, memoranda, reports and other materials. Interview callers and arrange for appointments and conferences. Maintain confidential and general files, accounting records, and other office records. Plan, organize, assign, and review work of subordinates when required. I also act as Secretary to the Radiation Advisory Council.

University of Nebraska Medical Center
Department of Ophthalmology
42nd & Dewey Avenue
Omaha, Nebraska 68105

December 1970 thru December 1972
Employer: Raymond E. Records, M.D.
Professor & Chairman
Department of Ophthalmology
Title: Staff Assistant

Job consisted of being Staff Assistant to Dr. Records, to assist in managing affairs of the department. Composed correspondence, reports, and material requiring knowledge of office procedure and policy. Transcribed dictation of confidential nature. Gathered and summarized information and data for executive action. Interviewed callers and arranged for appointments and conferences. Maintained confidential and general files, account records, and other office records. Typed rough draft and other sources, letters, memoranda, and other material. Interpreted administrative decisions and policies as explained and transmitted orders and instructions. I worked a great deal with the public and also Medical Center officials.

Blue Cross/Blue Shield
Medicare Division
4010 Washington
Kansas City, Missouri 64141

July 1969 thru October 1970
Employer: James C. Constance, Supervisor
Medicare A & B
Title: Secretary

Job consisted of being Secretary to Mr. Constance. Transcribed dictation, composed and typed letters, memoranda, reports, and other materials. Maintained confidential files and general files, and other office material. Interviewed callers and arranged for appointments concerning Medicare Claims. I assisted the supervisor in all phases of Medicare Claims, including talking with the public and personnel in the Medicare Division and also the Blue Cross/Blue Shield Plans.

Travellers Insurance Company
700 Anderson Building
Lincoln, Nebraska 68510

May 1968 thru June 1969
Employer: Gayle Cummings, Claims Supervisor
Title: Clerk Typist

Job consisted of working Medicare and Railroad issuance claims.

State of Nebraska
Department of Motor Vehicles
State Capitol
Lincoln, Nebraska 68509

April 1967 thru May 1968
Employer: Ralph Saathoff, Division Chief
 Chuck Kaufman, Supervisor of Financial Responsibility
Title: Clerk Typist

State of Nebraska
Department of Labor
550 South 16th Street
Lincoln, Nebraska 68509

January 1967 thru April 1967 (Temporary)
Employer: Karl Kost, Chief of Fiscal Services
Title: Clerk Typist

Golds (now known as Brandeis) Department Store
11th and "O" Street
Lincoln, Nebraska 68508

1963-1967 (part-time)
Employer: Gold's Personnel Office

Worked in the Credit Office, as a sales clerk, and also on the College Board.

Davidson Insurance Inc.
208 Anderson Building
Lincoln, Nebraska 68508

1960-1967 (part-time)
Employer: Bill Davidson
Title: Clerk Typist and Secretary

Job consisted of maintaining files, typing and various other office procedures.

References on Request.