

REVIEW REPORT  
FOR  
THE EVALUATION OF AGREEMENT STATE PROGRAM

State Kansas

Period Covered by Review February 26, 1993 - May 19, 1995  
Month/Year - Month/Year

Prepared by Richard L. Blanton Date July 10, 1995  
Reviewer/Team Leader

Next recommended Review Visit May 1996  
Month/Year

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## REVIEW CONTROL SHEET

I. Radiation Control Program:	Kansas		
II. Type of Review:	Routine		
III. Dates of Review: Year	1995		
A. RCP Office Review	May 15 - 19		
B. Field Evaluations	May 17		
C. Regional or Other Office or Site Visits	None		
D. Visits to State-Licensed Facilities	None		
E. Exit meeting	May 19		
IV. Total Field Evaluations	1	Total Licensee Visits	0
V. Period of Review: From February 26, 1993 To May 19, 1995			
VI. Staff-Days in State: Total	8		
A. Regional SAO	0		
B. Other Regional Representatives	3		
C. Other SP Representatives	5		
D. Other NRC Representatives	0		
E. Other Review Participants	0		
7. Review hours devoted to technical assistance or staff training: 0			

## Instructions:

1. Enter name of State or Agency.
2. Enter type of review: Routine, Follow-up, Orientation, Special.
3. Year. In items 3.a-e enter dates for each activity, e.g., 3/18, 3/25 or 3/18-23 (or "none").
4. Enter the total number of evaluations and visits during the review period including mid-review or special visits.
5. For routine reviews, enter the last dates of the previous review and the present review. For other reviews, leave blank.
6. Enter the total NRC in-State staff days expended during the review. In items 6.a-e, enter the total in-State staff days for all personnel participating in the review.
7. Estimate the total number of hours spent during the review providing technical assistance or staff training. Include such activities as instructing staff, helping develop procedures, interpreting regulations, explaining NRC reference materials, etc.

DATED: OCTOBER 31, 1995

SIGNED BY: SPIROS DROGGITIS FOR  
RICHARD L. BANGART

James O'Connell, Secretary  
Kansas Department of Health and Environment  
900 S.W. Jackson Street, Suite 620  
Topeka, Kansas 66612-1290

Dear Mr. O'Connell:

This is to transmit the results of the NRC review and evaluation of the Kansas radiation control program conducted by Mr. Richard Blanton, Health Physicist, Office of State Programs and Ms. Jackie Burks, Health Physicist, Region IV, which was concluded on May 19, 1995. The results of this review were discussed with Mr. John Irwin, Director of the Bureau of Air and Radiation and Mr. Gerald Allen, Chief of the X-Ray and Radioactive Materials Control Section, on May 19, 1995.

As a result of our review of the Kansas program and the routine exchange of information between the NRC and the State, the staff has determined that, at this time, the Kansas program for the regulation of certain Atomic Energy Act radioactive materials is adequate to protect public health and safety.

However, a finding that the program is compatible with NRC's program is being withheld because regulations required for compatibility have not been adopted by Kansas within the three-year period after the NRC rules became effective.

The Kansas program has not adopted amendments equivalent to three NRC regulatory amendments: "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 10 CFR Parts 30, 40, and 70 amendments, which were to be adopted by April 7, 1993, "Safety Requirements for Industrial Radiographic Equipment," 10 CFR Part 34 amendments, which were to be adopted by January 10, 1994, and "Notification of Incidents," 10 CFR 30, 40, and 70 amendments, which were to be adopted by October 15, 1994. In addition, the requirements of the State's regulation on financial assurance for decommissioning are not compatible since they differ significantly from those in the NRC rules, 10 CFR Parts 30, 40, and 70, which were to be adopted by July 27, 1991.

In addition to the four regulations above, the Kansas program has not adopted the "Quality Management and Misadministration" (QM) rule, which was required by January 27, 1995. Subsequent to our review of the program, NRC initiated an evaluation of when, and under what circumstances, the QM rule should be used as a basis for the determination of an Agreement State program's compatibility. The staff recommendation is under review by the Commission.

Therefore, the absence of a compatible QM rule will not be used as a basis for the withholding of a finding of compatibility at this time. NRC's position on compatibility determinations involving QM rule promulgation will be communicated to you when it is final; any impacts on Agreement State program compatibility will also be noted at that time. However, we continue to encourage Agreement States to adopt a compatible QM rule.

It is noted in regard to the Emergency Preparedness rule that currently there are no major manufacturers or processors in Kansas; it may be that no licensee is authorized to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass, in excess of the quantities specified in 10 CFR 30.72, Schedule C, in which case the rule is not required. We recommend that a review of licenses be performed and that the results be documented and reported to NRC if the results support not adopting the rule. If the review identifies affected licensees, promulgation of the rule requirements is necessary before a compatible program finding can be made.

In response to a question submitted prior to the review, the program indicated that consideration was being given to imposing the Safety Requirements for Industrial Radiographic Equipment rule as a license condition. Under current NRC policy, promulgation of these requirements as a rule is necessary before a compatible program finding can be made.

Please note there has been a change in the format of this letter from our previous review letters. This letter summarizes the findings regarding all 30 program indicators, as opposed to only discussing those indicators where deficiencies were noted.

Enclosure 1 contains an explanation of our policies and practices for reviewing Agreement State programs. Enclosure 2 summarizes our review findings where we have identified recommendations for improvements. We request specific responses from the State on the findings and recommendations in Enclosure 2 within 30 days of this letter. We recognize the delay in our issuance of this letter; if you require more than 30 days to respond, please let us know.

Enclosure 3 presents a summary of the review findings where the State has adequately satisfied the indicator. A response to the items in Enclosure 3 is not required.

We are pleased to note the success of the Kansas program in addressing the findings of the last review in 1993 regarding the inspection program. I appreciate the courtesy and cooperation extended the NRC staff during the review.

Sincerely,

Richard L. Bangart, Director  
Office of State Programs

Enclosures:

1. Application of "Guidelines for NRC Review of Agreement State Radiation Control Programs"
2. Status of Previous Findings and Summary of Review Findings and Recommendations for the Kansas Radiation Control Program February 26, 1993 to May 19, 1995
3. Summary Assessment of Indicators Fully Satisfied by the Kansas Radiation Control Program February 26, 1993 to May 19, 1995

cc w/encl:

Gerald W. Allen  
State Liaison Officer

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cc w/encl:

Gerald W. Allen  
State Liaison Officer

bcc w/encl:

The Chairman  
Commissioner Rogers

Distribution:

DIR RF	DCD (SP01)	PDR (YES)
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SDroggitis, OSP	Kansas File	

DOCUMENT NAME: G:\CHM\95LETTER.KS \* See previous concurrence. \*\* E-Mail concurrence.

OFFICE	OSP	C	OSP:DD	RA	OGC	OSP:D	
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OSP FILE CODE: SP-AG-10

APPLICATION OF "GUIDELINES FOR NRC REVIEW  
OF AGREEMENT STATE RADIATION CONTROL PROGRAMS"

The "Guidelines for NRC Review of Agreement State Radiation Control Programs," were published in the Federal Register on May 28, 1992, as an NRC Policy Statement. The Guidelines provide 30 indicators for evaluating Agreement State program areas. Guidance as to their relative importance to an Agreement State program is provided by categorizing the indicators into two categories. Category I indicators address program functions which directly relate to the State's ability to protect the public health and safety. If significant problems exist in several Category I indicator areas, then the need for improvements may be critical.

Category II indicators address program functions which provide essential technical and administrative support for the primary program functions. Good performance in meeting the guidelines for these indicators is essential in order to avoid the development of problems in one or more of the principal program areas, i.e., those that fall under Category I indicators. Category II indicators frequently can be used to identify underlying problems that are causing, or contributing to, difficulties in Category I indicators.

It is the NRC's intention to use these categories in the following manner. In reporting findings to State management, the NRC will indicate the category of each comment made. If no significant Category I comments are provided, this will indicate that the program is adequate to protect the public health and safety and is compatible with the NRC's program. If one or more significant Category I comments are provided, the State will be notified that the program deficiencies may seriously affect the State's ability to protect the public health and safety. If, following receipt and evaluation, the State's response appears satisfactory in addressing the significant Category I comments, the staff may offer findings of adequacy and compatibility, as appropriate, or defer such offering until the State's actions are examined and their effectiveness confirmed in a subsequent review. If additional information is needed to evaluate the State's actions, the staff may request the information through follow-up correspondence or perform a follow-up or special, limited review. NRC staff may hold a special meeting with appropriate State representatives. Comments on Category I indicators that are not significant will not be used as a basis for withholding of findings of adequacy or compatibility.

The Commission will be informed of the results of the reviews of the individual Agreement State programs and copies of the review correspondence to the States will be placed in the NRC Public Document Room. Pursuant to Section 274j of the Act, the Commission may terminate or suspend all or part of its agreement with a State if the Commission finds such termination or suspension is required to protect the public health and safety, or the State has not complied with one or more requirements of section 274 of the Act.

ENCLOSURE 1

STATUS OF PREVIOUS FINDINGS AND  
SUMMARY OF REVIEW FINDINGS AND RECOMMENDATIONS  
FOR THE KANSAS RADIATION CONTROL PROGRAM  
FEBRUARY 26, 1993 TO MAY 19, 1995

SCOPE OF REVIEW

The 27th regulatory program review with Kansas representatives was held during the period May 15 - 19, 1995, in Topeka, Kansas. This program review was conducted in accordance with the Commission's Policy Statement for reviewing Agreement State Programs published in the Federal Register on May 28, 1992, and the internal procedures established by the Office of State Programs. The State's program was reviewed against the 30 program indicators provided in the Policy Statement. It is noted that the Kansas Agreement does not include jurisdiction over section 11(e)2 byproduct material, nor does the State license a low-level radioactive waste disposal site. The guidelines related to these activities therefore do not apply. The review included an inspector accompaniment, discussions with program management and staff, technical evaluation of selected license and compliance files, a review of the State's policies and procedures, and the evaluation of the State's responses to an NRC questionnaire that was sent to the State in preparation for the review.

The State was represented by Mr. Gerald Allen, Chief of the X-Ray and Radioactive Materials Control Section, and director of the program. Discussions were held with Mr. Allen and his staff. Discussions were also held with Mr. Harold Spiker, Chief of the Radiological Environmental Surveillance and Emergency Planning Section.

Selected license and compliance files were reviewed by Mr. Richard Blanton, Health Physicist, Office of State Programs; assisted by Ms. Jacqueline Burks, Health Physicist, Region IV. A field accompaniment of one inspector was conducted by Mr. Blanton on May 18, 1995.

CONCLUSION

The State's program for the regulation of certain Atomic Energy Act radioactive materials is, at this time, adequate to protect the public health and safety. However, a finding that the program is compatible with NRC's program is being withheld because regulations required for compatibility have not been adopted by Kansas within the three-year period after the NRC rules became effective.

The Kansas program has not adopted amendments equivalent to three NRC regulatory amendments: "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 10 CFR Parts 30, 40, and 70 amendments, which were to be adopted by April 7, 1993, "Safety Requirements for Industrial Radiographic Equipment," 10 CFR Part 34 amendments, which were to be adopted by January 10, 1994, and "Notification of Incidents," 10 CFR 30, 40, and 70 amendments, which were to be adopted by October 15, 1994. In addition, the requirements of the State's regulation on financial assurance for decommissioning are not compatible since they differ significantly from those in the NRC rules, 10 CFR Parts 30, 40, and 70, which were to be adopted by July 27, 1991. It is noted in regard to the emergency preparedness rule that currently there are no major manufacturers or processors in Kansas; it may be that no licensee is authorized to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass, in excess of the quantities specified in 10 CFR 30.72, Schedule C, in which case the rule is not required. We recommend that a review of licenses be performed and that the results be reported to NRC if those review results support not adopting

the rule. If the review identifies affected licensees, promulgation of the rule requirements is necessary before a compatible program finding can be made.

In addition to the four regulations above, the State has not adopted the "Quality Management and Misadministration" (QM) rule, which was required by January 27, 1995. Subsequent to our review of the program, NRC initiated an evaluation of when, and under what circumstances, the QM rule should be used as a basis for the determination of an Agreement State program's compatibility. The staff recommendation is under review by the Commission. Therefore, the absence of a compatible QM rule will not be used as a basis for the withholding of a finding of compatibility at this time. NRC's position on compatibility determinations involving QM rule promulgation will be communicated to you when it is final; any impacts on Agreement State program compatibility will also be noted at that time. However, we continue to encourage Agreement States to adopt a compatible QM rule.

#### STATUS OF PROGRAM RELATED TO PREVIOUS NRC FINDINGS

The results of the previous review were reported to the State in a letter to Robert C. Harder, Ph.D., Secretary of the Department of Health and Environment, dated April 13, 1993. The current status of the comments are as follows:

##### 1. Status and Compatibility of Regulations (Category I Indicator)

The issue addressed in the following comment has not been satisfactorily resolved and remains open.

##### Comment from the 1993 Review

The review of the State's radiation control regulations disclosed that six regulatory amendments, which are matters of compatibility, have not been adopted by the State within a three-year period after publication by the NRC. These amendments deal with a bankruptcy reporting requirement, well logging requirements, a radiography requirement relating to a quarterly audit of radiographers, a NVLAP certification requirement, a decommissioning requirement, and a misadministration reporting requirement. We noted that all of these rules have been drafted and included in a current revision of the State's radiation control regulations. The Bureau believes that these rules will be adopted within a short time. Also, in a special meeting with the new secretary of the Department of Health and Environment on February 23, 1993, Secretary Harder pledged his full support in expediting the adoption of these regulations. Secretary Harder took several steps during the week of the review to move the draft regulations to the Attorney General's Office for final review.

##### Recommendation from the 1993 Review

We recommend that these amendments, and any others approaching the three-year period allowed after NRC adoption, be promulgated as effective State radiation control regulations. Other compatibility regulations due in the near future include:

- "Emergency Planning Rule," 10 CFR Parts 30, 40, and 70 amendments (54 FR 14051) needed by April 7, 1993.
- "Standards for Protection Against Radiation," 10 CFR Part 20 amendment (56 FR 61352) needed by January 1, 1994.

- "Safety Requirements for Radiographic Equipment," 10 CFR Part 34 amendment (55 FR 843) needed by January 10, 1994.
- "Notification of Incidents," 10 CFR Parts 20, 31, 34, 39, 40, and 70 amendments (55 FR 40757) needed by October 15, 1994.
- "Quality Management Program and Misadministrations," 10 CFR Part 35 amendment (56 FR 153) needed by January 27, 1995.

#### May 1995 Status

The six rules identified in the "1993 Comment" as overdue have been adopted. However, the text of the decommissioning rule was adopted based on the 1988 version of the Suggested State Regulations, which is not compatible with the current NRC rule due to subsequent amendments to the NRC rule. The other rules were reviewed and determined to be compatible. With respect to the rules identified in the "1993 Recommendation," only the Part 20 equivalent rules have been adopted. The others are now overdue and are the subject of a recommendation below.

#### 2. Status of Inspection Program (Category I Indicator)

The issue addressed in the following comment has been satisfactorily resolved and is closed.

#### Comment from the 1993 Review

Our review disclosed that 12 priority 1 and 2 licenses were overdue for inspection by more than 50 percent of the inspection frequency. This comment is of minor significance since four of these inspections are for well logging licensees, who have had few operational activities during the last two years, and the others are scheduled for early inspections. The Bureau is just completing a significant effort at bringing all overdue inspections up to date (113 inspections were completed during the 1992 review period).

#### Recommendation from the 1993 Review

We recommend that the Bureau management complete this minor backlog of the more significant State license inspections.

#### May 1995 Status

The program has eliminated all overdue inspections of priority 1 licenses. Of the three priority 2 licenses listed by the program as overdue for inspection, two operate only intermittently and may not have operated at all since the last review. The third license normally carries a lower priority; the priority was elevated to assure that it will be inspected as part of license renewal. For purposes of the review, these licenses are not considered backlogged.

#### CURRENT REVIEW ASSESSMENTS AND RECOMMENDATIONS

All 30 program indicators were reviewed and the State fully satisfies 28 of these indicators. Recommendations are made regarding two indicators as discussed below. Only the comment on the Status and Compatibility of Regulations is considered to be a "significant" Category I indicator comment and recommendation, as defined in Enclosure 1. The remaining 28 indicators are discussed in Enclosure 3. A questionnaire containing the 30 indicators

with specific questions pertaining to each indicator was sent to the State prior to the review.

The assessments and recommendations below are based upon the evaluation of the State's written response to the questionnaire (as revised based on discussions with program staff), comparison with previous review information, a review of the State's written procedures and policies, discussions with program managers and staff members, reviewer's observations, and licensing, inspection and incident file reviews. Specific assessments and recommendations are as follows:

1. Status and Compatibility of Regulations (Category I Indicator)

NRC Guidelines

The State must have regulations essentially identical to 10 CFR Part 19, Part 20 (radiation dose standards, effluent limits, waste manifest rule and certain other parts), Part 61 (technical definitions and requirements, performance objectives, financial assurances) and those required by UMTRCA, as implemented by Part 40.

The State should adopt other regulations to maintain a high degree of uniformity with NRC regulations.

For those regulations deemed a matter of compatibility by NRC, State regulations should be amended as soon as practicable but no later than 3 years.

The radiation control program (RCP) has established procedures for effecting appropriate amendments to State regulations in a timely manner, normally within 3 years of adoption by NRC.

Opportunity should be provided for the public to comment on proposed regulation changes (required by UMTRCA for uranium mill regulation.)

Pursuant to the terms of the Agreement, opportunity should be provided for the NRC to comment on draft changes in State regulations.

Assessment

Kansas adopted, effective October 17, 1994, regulations equivalent to the revised 10 CFR Part 20, including the conforming changes in 10 CFR Part 19. These rules were reviewed by NRC in draft form, and a formal review of the adopted regulations is pending.

An opportunity for public comment is provided for in the Kansas administrative procedures for rule adoption. As in the case of the Part 20 rules, the State also provides the NRC with the opportunity to comment on proposed regulations.

The Kansas program adopts rules based on, and generally similar to, the Suggested State Regulations. The program follows procedures issued by the State Administration, legal advice issued by the Attorney General, and departmental procedures in developing and promulgating regulations. Due to time constraints, the procedures were not audited during this review.

Kansas needs to adopt five regulatory amendments which are matters of compatibility. The five rules are as follows:

- "General Requirements for Decommissioning Nuclear Facilities," 10 CFR Parts 30, 40, and 70 amendments that became effective July 27, 1988 (53 FR

24018) which were to be adopted by July 27, 1991. The State rule addressing decommissioning does not require the licensee to provide the assurance of funding for decommissioning with the same or greater stringency than the NRC rule.

- "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 10 CFR Parts 30, 40, and 70 amendments that became effective April 7, 1990 (54 FR 14051) which were to be adopted by April 7, 1993. It is noted that currently there are no major manufacturers or processors in Kansas; it may be that no licensee is authorized to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in 10 CFR 30.72, Schedule C. A review of licenses should be performed and the results reported to NRC if the results support not adopting the rule.
- "Safety Requirements for Industrial Radiographic Equipment," 10 CFR Part 34 amendments that became effective January 10, 1991 (55 FR 843) which were to be adopted by January 10, 1994. The State has been awaiting the publication of an equivalent SSR to use as a basis for their regulation.

In their response to the questionnaire, the program indicated that consideration was being given to imposing the requirements of this rule as a license condition. It is noted that use of license conditions in substitution for rulemaking is not consistent with current policy in view of the existence of affected licensees. The State should continue with the rulemaking.

- "Notification of Incidents," 10 CFR Parts 20, 30, 31, 34, 39, 40, and 70 amendments that became effective October 15, 1991 (56 FR 64980) which were to be adopted by October 15, 1994. The State mistakenly believed that the requirements of this rule had been covered in a similar section in revised 10 CFR Part 20.
- "Quality Management Program and Misadministrations," 10 CFR Part 35 amendments, that became effective January 27, 1992, which were to be adopted by January 27, 1995.

Additionally, the State should note the following rules some of which it may need to adopt:

- "Licenses and Radiation Safety Requirements for Irradiators," 10 CFR Part 36 (58 FR 7715) that became effective on July 1, 1993 and may need to be adopted by July 1, 1996. The Commission has determined that if there are no licensees that would be affected by this Part, adoption may be deferred.
- "Decommissioning Recordkeeping, and License Termination: Documentation Additions," 10 CFR Parts 30, 40, and 70 amendments (58 FR 39628) that became effective on October 25, 1993 and will need to be adopted by October 25, 1996.
- "Self-Guarantee as an Additional Financial Mechanism," 10 CFR Parts 30, 40, and 70 amendments (58 FR 68726) that became effective on January 28, 1994 and will need to be adopted by January 28, 1997.
- "Timeliness in Decommissioning of Materials Facilities," 10 CFR Parts 30, 40, and 70 amendments (59 FR 36026) that became effective on August 15, 1994, and will need to be adopted by August 15, 1997.

- "Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use," 10 CFR Parts 30, 32, and 35 amendments (59 FR 61767, 65243, and 60 FR 322) that became effective on January 1, 1995, and will need to be adopted by January 1, 1998.
- "Frequency of Medical Examinations for Use of Respiratory Protection Equipment," 10 CFR Part 20 amendments (60 FR 7900) that became effective on March 13, 1995, and will need to be adopted by March 13, 1998.
- "Low-Level Waste Shipment Manifest Information and Reporting," 10 CFR Parts 20 and 61 amendments (60 FR 15649) that will become effective March 1, 1998, and will need to be adopted by March 1, 1998.

#### Recommendations

- a. An audit of licenses should be performed as soon as possible, to determine if adoption of the Emergency Preparedness rule, as discussed above, is required. The other four rules should be promulgated as soon as possible, and license conditions should not be used in substitution for the Industrial Radiography Equipment rule.
- b. The Kansas program should modify the informal policy of waiting for an SSR to be issued before starting the adoption of a rule or amendment which is required for compatibility. Consideration should be given to adding a policy provision which requires drafting a proposed rule based directly on the equivalent NRC rule if an SSR is not available in time to permit adoption of a Kansas rule which would become effective within 3 years after NRC adopts the rule.

#### 2. Quality of Emergency Planning (Category I Indicator)

##### NRC Guidelines

The State RCP should have a written plan in response to incidents at licensee facilities which takes into account such incidents as spills, overexposure, transportation accidents, fire or explosion, theft, etc.

The plan should define the responsibilities and actions to be taken by State agencies. The plan should be specific as to persons responsible for initiating response actions, conducting operations and cleanup.

Emergency communication procedures should be adequately established with appropriate local, county, and State agencies. Plans should be distributed to appropriate persons and agencies. NRC should be provided the opportunity to comment on the plan while in draft form.

The plan should be reviewed annually by program staff for adequacy and to determine that content is current. Periodic drills should be performed to test the plan.

##### Assessment

The current Kansas plan is contained in the "Radiation Emergency Handbook," sixth edition, published by the Department of Health and Environment. The plan meets the guidelines for defining responsibility and communications. According to the response in the questionnaire, it is modified as needed by the Radiological Environmental Surveillance and Emergency Planning Section. NRC is provided the opportunity to comment on significant changes. The questionnaire responses further disclosed that the plan was revised in

January, 1994. Discussion with program management revealed that the revision was minor. A copy of the plan was provided during the review.

The plan was not tested in a drill during the period covered by the review. It was activated and used in response to one actual incident, however, program management indicated that there was no critique or other review of the response. Thus, there was no formal feed-back on how well the plan worked.

Recommendation

If the response to an actual incident is to be used as a basis to meet the NRC guideline, we recommend that there should be a formal evaluation of the response actions compared to the planned actions to provide a feed-back of lessons learned, and to form the basis for modifications to the plan or to provide additional training of responders, as indicated. The plan itself should also be modified, if necessary, to provide guidance for such a critique.

SUMMARY OF DISCUSSIONS WITH STATE REPRESENTATIVES

A summary meeting regarding the results of the review was held with Mr. John Irwin, Director of the Bureau of Air and Radiation, and Mr. Gerald Allen, Chief of the X-Ray and Radioactive Materials Control Section, on May 19, 1995. The tentative findings that the program meets 29 of the 30 indicators and is adequate, but compatibility should be withheld, were discussed. Additionally, it was noted that minor comments and recommendations would be proposed for two of the indicators that were partially satisfied.

Subsequently, it was determined during staff evaluation of the review information that the findings should be changed. One minor comment was dropped and the statement of findings changed to indicate that the program fully satisfies 28 of the 30 indicators and is adequate, but that a finding of compatibility should be withheld due to the differences between the Kansas and NRC regulations.

SUMMARY OF ASSESSMENT OF INDICATORS FULLY SATISFIED  
BY THE KANSAS RADIATION CONTROL PROGRAM  
FEBRUARY 26, 1993, TO MAY 19, 1995

The assessments below are based upon the evaluation of the State's written response to the questionnaire (as revised based on discussions with program staff), comparison with previous review information, discussions with the program managers and staff members, review team observations, review of the State's policies and procedures and licensing and inspection casework file reviews, and the accompaniment of one inspector. The State fully satisfies the following indicators:

1. Legal Authority (Category I)

NRC Guidelines

Clear statutory authority should exist, designating a State radiation control agency and providing for promulgation of regulations, licensing, inspection and enforcement.

States regulating uranium or thorium recovery and associated wastes pursuant to the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) must have statutes enacted to establish clear authority for the State to carry out the requirements of UMTRCA.

States regulating the disposal of low-level radioactive waste in permanent disposal facilities must have statutes that provide authority for the issuance of regulations for low-level waste management and disposal. The statutes should also provide regulatory program authority and provide for a system of checks to demonstrate that conflicts of interest between the regulatory function and the developmental and operational functions shall not occur.<sup>1</sup>

Assessment

The program management reported that the statutes authorizing the program for agreement materials are unchanged since the last review. The statutes had previously been reviewed and found to meet the guidelines.

The Kansas Agreement does not include jurisdiction over section 11(e)2 byproduct material, nor does the State license a low-level radioactive waste disposal site. The guidelines related to these activities therefore do not apply to the Kansas program.

It is noted that Kansas is a member of the Central Interstate Compact with Nebraska as the designated host State.

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<sup>1</sup>The level of separation (e.g., separate agencies) should be determined for each State individually.

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

NRC Guidelines

The RCP should be located in a State organization parallel with comparable health and safety programs. The Program Director should have access to appropriate levels of State management.

Where regulatory responsibilities are divided between State agencies, clear understandings should exist as to division of responsibilities and requirements for coordination.

Assessment

There has been no change of the location of the program within the structure of the Department of Health and Environment, nor has the Department changed position within the structure of the State government. The organizational chart returned with the questionnaire shows the radiation control program to be located within the Bureau of Air and Radiation, which itself is located within the Division of Environment.

The manager of the radiation control program reports to the Governor through three intermediate supervisors. This is comparable to other regulatory programs within Kansas and to radiation control programs in other Agreement States. The regulatory responsibilities for agreement materials remain consolidated within the Department.

3. Internal Organization of the RCP (Category II)

NRC Guidelines

The RCP should be organized with the view toward achieving an acceptable degree of staff efficiency, place appropriate emphasis on major program functions, and provide specific lines of supervision from program management for the execution of program policy.

Where regional offices or other government agencies are utilized, the lines of communication and administrative control between these offices and the central office (Program Director) should be clearly drawn to provide uniformity in licensing and inspection policies, procedures and supervision.

Assessment

Based on information provided by the program management, there has been no change in the internal organization of the program since the last review. The program consists of two sections. The X-Ray and Radioactive Materials Control Section (XRMCS) is responsible for licensing and inspection, while the Radiological Environmental Surveillance and Emergency Planning Section (RESEPS) is responsible for responding to materials incidents and events. The staffs of the sections are cross-trained. The Chief of XRMCS acts as the radiation control program director.

In both sections the professional staff report directly to the section chief. In the XRMCS, three professional staff members perform both licensing and inspection activities. It is noted that the regional offices support the agreement materials program only by providing an incident response capability. This function is under the supervision of the Chief of RESEPS.

4. Legal Assistance (Category II)

NRC Guidelines

Legal staff should be assigned to assist the RCP or procedures should exist to obtain legal assistance expeditiously. Legal staff should be knowledgeable regarding the RCP program, statutes, and regulations.

Assessment

Legal advisors continue to be available within the Bureau, unchanged since the previous review. Responses provided in the questionnaire indicate that the advisors were used to assure that legal requirements were met in the investigation of an allegation, and to assure the legality of regulations which the program proposed to adopt.

The program director and staff members expressed satisfaction with the availability and expertise of the legal counsel. The reviewers conclude that the legal assistance available to the program is adequate.

5. Technical Advisory Committees (Category II)

NRC Guidelines

Technical committees, Federal agencies, and other resource organizations should be used to extend staff capabilities for unique or technically complex problems.

A State Medical Advisory Committee should be used to provide broad guidance on the uses of radioactive drugs in or on humans. The Committee should represent a wide spectrum of medical disciplines. The Committee should advise the RCP on policy matters and regulations related to use of radioisotopes in or on humans.

Procedures should be developed to avoid conflict of interest, even though Committees are advisory. This does not mean that representatives of the regulated community should not serve on advisory committees or not be used as consultants.

Assessment

The program reported that no unique or technically complex problems which merited a request for technical assistance arose during the review period. The reviewer's audit of the licensing files revealed no instance of such problems going unrecognized by the program staff.

The Medical Advisory Committee is the only standing technical assistance committee. This is unchanged from the last review. The three members of the committee represent the fields of Nuclear Medicine, X-Ray and Radiopharmacy. According to program management, requirements to avoid conflicts of interest are specified by statute.

6. Contractual Assistance (Category II)

NRC Guidelines

Because of the diversity and complexity of low-level radioactive waste disposal licensing and regulation, States regulating the disposal of low-level radioactive waste in permanent disposal facilities should have procedures and

mechanisms in place for acquisition of technical and vendor services necessary to support these functions that are not otherwise available within the RCP.

The RCP should avoid the selection of contractors which have been selected to provide services associated with the LLW facility development or operations.

Assessment

By virtue of its membership in the Central Interstate Compact as other than the designated host State, this indicator does not apply to the Kansas program.

7. Budget (Category II)

NRC Guidelines

Operating funds should be sufficient to support program needs, such as staff travel necessary to the conduct of an effective compliance program, including routine inspections; follow-up or special inspections (including pre-licensing visits) and responses to incidents and other emergencies; instrumentation and other equipment to support the RCP; administrative costs in operating the program, including rental charges, printing costs, laboratory services, computer and/or word processing support; preparation of correspondence office equipment; hearing costs; etc., as appropriate. States regulating the disposal of low-level radioactive waste facilities should have adequate budgetary resources to allow for changes in funding needs during the LLW facility life cycle. After appropriations, the sources of program funding should be stable and protected from competition from, or invasion by, other State programs.

Principal operating funds should be from sources which provide continuity and reliability, i.e., general tax, license fees, etc. Supplemental funds may be obtained through contracts, cash grants, etc.

Assessment

Responses by the program to the questionnaire and discussions with the program director indicated that the budget is adequate to meet current needs, but not sufficient to cover unexpected occurrences. In case of such an occurrence, however, emergency supplementary funding may be obtained through a standing legislative committee. The program director also describes funding as "tight" with respect to clerical staff and for office and technical equipment.

The current year budget shows a total appropriation of approximately \$990,000 of which approximately \$140,000 is to be spent on the radioactive materials program. According to the program director, the funds are appropriated to the program and are not subject to re-appropriation by the Department. The breakdown provided does not list further details of the materials program functions supported out of the \$140,000, and this issue was not pursued during the review. It was noted rather that the program is functional, the licensing and inspections activities are reasonably up-to-date, and events are being properly handled.

Kansas collects fees for licenses, however, these fees are deposited into the State General Fund and none of the fees collected go directly to the program. The bulk of the budget is appropriated from the General Fund, but there appears to be no direct link between the amount collected in fees and the amount appropriated. From the figures provided, it is not clear what percentage of the expenses are offset by fees collected.

## 8. Laboratory Support (Category II)

### NRC Guidelines

The RCP should have laboratory support capability in house, or readily available through established procedures, to conduct bioassays, analyze environmental samples, analyze samples collected by inspectors, etc. on a priority established by the RCP.

In addition, States regulating the disposal of low-level radioactive waste in permanent disposal facilities should have access to laboratory support for radiological and non-radiological analyses associated with the licensing and regulation of low-level waste disposal, including soils testing, testing of environmental media, testing of engineering properties of waste packages and waste forms, and testing of other engineering materials used in the disposal of low-level radioactive waste. Access to laboratory support should be available on an "as needed" basis for nonradiological analyses to confirm licensees' and applicants' programs and conditions for nonradiological testing should be prescribed in plans or procedures.

### Assessment

Based on answers in the questionnaire and discussions with program staff, there has been no change in laboratory support since the last review. The program maintains a limited capability for gamma spectroscopy within the offices, however, there is a well equipped radiation laboratory in the laboratories division of the Department of Health and Environment located in another building about one-half mile away. Samples submitted by inspectors are analyzed and results returned usually in about one week. Quicker turnaround is available in emergencies.

The RESEPS publishes an annual report of routine monitoring at fixed nuclear facilities. The equipment and capabilities of the laboratory are listed in the annual report.

## 9. Administrative Procedures (Category II)

### NRC Guidelines

The RCP should establish written internal policy and administrative procedures to assure that program functions are carried out as required and to provide a high degree of uniformity and continuity in regulatory practices. These procedures should address internal processing of license applications, inspection policies, decommissioning and license termination, fee collection, contacts with communication media, conflict of interest policies for employees, exchange-of-information and other functions required of the program. Administrative procedures are in addition to the technical procedures utilized in licensing, and inspection and enforcement.

### Assessment

The program maintains a set of policies and procedures identified as the "RHS Handbook." In response to the questionnaire, the program submitted copies of the RHS series procedures that had been modified since the previous review. These were briefly reviewed for content. A copy of the table of contents of the RHS Handbook was provided the reviewer to show the subjects covered.

10. Management (Category II)

NRC Guidelines

Program management should receive periodic reports from the staff on the status of regulatory actions (backlogs, problem cases, inquiries, regulation revisions).

RCP management should periodically assess workload trends, resources and changes in legislative and regulatory responsibilities to forecast needs for increased staff, equipment, services and funding.

Program management should perform periodic reviews of selected license cases handled by each reviewer and document the results. Complex licenses (major manufacturers, low-level radioactive waste disposal facilities, large scope-Type A Broad, potential for significant releases to the environment) should receive second party review (supervisory, committee, consultant). Supervisory review of inspections, reports and enforcement actions should also be performed.

For the implementation of very complex licensing actions, such as initial license review, license renewals and licensing actions associated with a low-level radioactive waste disposal facility, there should be an overall Project Manager responsible for the coordination and compilation of the diverse technical reviews necessary for the completion of the licensing action. The Project Manager should have training or experience in one or more of the main disciplines related to the technical reviews which the Project Manager will be coordinating such as health physics, engineering, earth science or environmental science.

When regional offices or other government agencies are utilized, program management should conduct periodic audits of these offices.

Assessment

The reviewers found that the management activities in both sections are generally unchanged since the last review.

The XRMCS chief exhibits a "proactive" style of management by going to the staff for status information daily. This is supplemented by regular staff reports and meetings. Workloads are assessed as part of the yearly budgeting process. The program director indicated that the workloads had remained stable during the review period.

The program administrative procedures call for a peer and supervisory review of each licensing action. (See also the assessment under the indicator Licensing Procedures.) The program director performs primarily a quality control review, after which he signs the license. Aspects of the management review other than the final approval are not documented. Inspection reports and enforcement actions are reviewed in a similar manner. The reviewer also determined that the program was currently studying improvements to the procedure.

11. Office Equipment and Support Services (Category II)

NRC Guidelines

The RCP should have adequate secretarial and clerical support. Automatic typing and Automatic Data Processing and retrieval capability should be

available to larger (greater than 300-400 licenses) programs. Similar services should be available to regional offices, if utilized.

States should have a license document management system that is capable of organizing the volume and diversity of materials associated with licensing and inspection of radioactive materials.

Professional licensing, inspection, and enforcement staff should not be used for fee collection and other clerical duties.

#### Assessment

In responses to the questionnaire, the program noted that secretarial and clerical support is adequate, but barely so. In conversations with the program director and staff, it was noted that they feel serious delays could develop if one of the current secretaries or clerks became unavailable. Backup staff is available from within the Bureau, however, the backup staff is not trained or experienced in radiation control program procedures.

The program had acquired a limited office automation capability in the form of desktop computers which were not networked. The program director maintains licensing and inspection information on a database, and the staff have word processing capability. The program continues to use a manual filing system, which is adequate.

#### 12. Public Information (Category II)

##### NRC Guidelines

Inspection and licensing files should be available to the public consistent with State administrative procedures. It is desirable, however, that there be provisions for protecting from public disclosure proprietary information and information of a clearly personal nature.

Opportunity for public hearings should be provided in accordance with UMTRCA and applicable State administrative procedure laws during the process of major licensing actions associated with UMTRCA and low-level radioactive waste in permanent disposal facilities.

##### Assessment

There has been no change to the public information procedures since the previous review. The program director elaborated in discussion that the program utilizes a departmental public information office when needed.

Kansas has an open records law which excludes compliance files. Other parts of the license file are available for public review. The law allows the program to protect proprietary and personal information from disclosure. The program has adopted policy and procedures in RHS-36 to implement the law.

#### 13. Qualifications of Technical Staff (Category II)

##### NRC Guidelines

Professional staff should have bachelor's degree or equivalent training in the physical and/or life sciences. Additional training and experience in radiation protection for senior personnel including the director of the radiation protection program should be commensurate with the type of licenses issued and inspected by the State. For States regulating uranium mills and mill tailings, staff training and experience should also include hydrology,

geology, and structural engineering.<sup>2</sup> For programs which regulate the disposal of low-level radioactive waste in permanent facilities, staff training and experience should include civil or mechanical engineering, geology, hydrology, and other earth science, and environmental science. In both types of materials, staff training and experience guidelines apply to available contractors and resources in State agencies other than the RCP.

Written job descriptions should be prepared so that professional qualifications needed to fill vacancies can be readily identified.

#### Assessment

Based on responses in the questionnaire, there has been no change in the program professional staff since the last review. Therefore the program continues to meet this guideline. Written job descriptions are maintained by the State Personnel Department and were also unchanged during the review period.

#### 14. Staffing Level (Category II)

##### NRC Guidelines

Professional staffing level should be approximately 1-1.5 person-years per 100 licenses in effect. The RCP must not have less than two professionals available with training and experience to operate the RCP in a way which provides continuous coverage and continuity. The two professionals available to operate the RCP should not be supervisory or management personnel.

For States regulating uranium mills and mill tailings, current indications are that 2-2.75 professional person-years of effort, including consultants, are needed to process a new mill license (including in situ mills) or major renewal, to meet requirements of Uranium Mill Tailings Radiation Control Act of 1978.

States which regulate the disposal of low-level radioactive waste in permanent disposal facilities should allow a baseline RCP staff effort of 3-4 professional technical person-years (in addition to the two professionals for the basic RCP indicated in the first bullet of this indicator). However, in some cases, the level of site activity may be such that a lower level is adequate, particularly if contractor support is on call. In any event, staff resources should be adequate to conduct inspections on a routine basis during operations of the LLW facility, including inspection of incoming shipments and licensee site activities and to respond to emergencies associated with the site. During periods of peak activity additional staff or specialty consultants should be available on a timely basis.

##### Assessment

The program calculated in responding to the questionnaire that there are approximately 0.94 professional staff per 100 specific licensees. It is noted that the calculation does not include the contribution of the RESEPS to incident responses. The time contributions of the RESEPS were not tracked and can not be quantitatively estimated.

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<sup>2</sup> Additional guidance is provided in the Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement (46 FR 7540, 36969 and 48 FR 33376).

Although the calculated staffing level is outside the NRC guidelines of 1.0 to 1.5 professional staff per 100 specific licensees, it is the conclusion of the reviewers that the program staffing level is adequate considering the mix of licensees, the experience level of the staff and the uncalculated contribution of the RESEPS to incident response. In support of the conclusion, it is noted that there is neither a significant backlog of overdue inspections nor of licensing actions, nor has the quality of the program activities suffered from lack of staff.

#### 15. Staff Supervision (Category II)

##### NRC Guidelines

Supervisory personnel should be adequate to provide guidance and review the work of senior and junior personnel.

Senior personnel should review applications and inspect licenses independently, monitor work of junior personnel, and participate in the establishment of policy.

Junior personnel should be initially limited to reviewing license applications and inspecting small programs under close supervision.

##### Assessment

The XRMCS professional staff for materials consists of the section chief (program director) and three license reviewers/inspectors, two of whom would be considered to be senior staff by NRC guidelines. Due to the size of the staff, the senior members do not monitor the work of the junior staff member. The section chief monitors the work of the three staff members continuously.

In the RESEPS, the section chief has three professional staff members assigned to emergency response. Although these staff members are primarily assigned to the fixed nuclear facility emergency response function, they are cross-trained for materials incident response and respond to materials incidents. The three staff members report directly to the section chief.

#### 16. Training (Category II)

##### NRC Guidelines

Senior personnel should have attended NRC core courses in licensing orientation, inspection procedures, medical practices and industrial radiography practices.

The RCP should have a program to utilize specific short courses and workshops to maintain an appropriate level of staff technical competence in areas of changing technology.

The RCP staff should be afforded opportunities for training that are consistent with the needs of the program.

##### Assessment

The four professional staff members of the XRMCS responsible for the materials program have completed the NRC core courses. A number of the other professional staff members of the program have also completed all or part of the NRC courses, as part of the program's cross-training effort. It was noted that staff members also attended non-NRC training. The program identified

training in transportation and investigation procedures as needed. The reviewers conclude that the program meets the guidelines.

17. Staff Continuity (Category II)

NRC Guidelines

Staff turnover should be minimized by combinations of opportunities for training, promotions, and competitive salaries.

Salary levels should be adequate to recruit and retain persons of appropriate professional qualifications. Salaries should be comparable to similar employment in the geographical area.

The RCP organization structure should be such that staff turnover is minimized and program continuity maintained through opportunities for promotion. Promotion opportunities should exist from junior level to senior level or supervisory positions. There also should be opportunity for periodic salary increases compatible with experience and responsibility.

Assessment

The program indicated in response to the questionnaire that there had been no turnover in staff since the previous review.

18. Technical Quality of Licensing Actions (Category I)

NRC Guidelines

The RCP should assure that essential elements of applications have been submitted to the agency and that these elements meet current regulatory guidance for describing the isotopes and quantities to be used, qualifications of persons who will use material, facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions. Additionally, in States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should assure that essential elements of waste disposal applications meet State licensing requirements for waste product and volume, qualifications of personnel, facilities and equipment, operating and emergency procedures, financial qualifications and assurances, closure and decommissioning procedures and institutional arrangements in a manner sufficient to establish a basis for licensing action. Licensing activities should be adequately documented including safety evaluation reports, product certifications, or similar documentation of the license review and approval process.

Prelicensing visits should be made for complex and major licensing actions.

Licenses should be clear, complete, and accurate as to isotopes, forms, quantities, authorized uses, and permissive or restrictive conditions.

The RCP should have procedures for reviewing licenses prior to renewal to assure that supporting information in the file reflects the current scope of the licensed program.

Assessment

In the program statistics information provided in response to the questionnaire, Kansas indicated that a total of 322 specific licenses were in effect in April of 1995. During calendar 1994 a total of 191 license actions were completed. This included the issuance of 11 new licenses, the

termination of eight and the issuance of 63 amendments. Prelicensing visits are conducted for complex and major licensing actions. One such visit was conducted during the 1994 calendar year.

The State also completed 109 renewals, including both simple and renewal-in-entirety. The simple renewal is an expiration date extension of two years linked to the payment of licensing fees. Licenses are usually renewed in their entirety after four simple renewals, or at 10 year intervals.

Twenty-one license files were selected for casework review including two new licenses, six renewals (simple & renewal-in-entirety), two license terminations, six renewals and amendments combined, and five amendments. All license reviewers were included in the review. License types included two radiopharmacies, one well logging, three portable gauges, two industrial radiographers, three fixed gauges, one mobile nuclear medicine, one medical-broad scope, six institutional medical, one private practice medical, and one academic.

The licensing actions were reviewed for completeness, consistency, proper isotopes and quantities, qualifications of authorized users, adequate facilities, operating and emergency procedures, and authorized user training sufficient to establish the basis for the licensing action. Casework was reviewed for timeliness, adherence to good health physics practices, reference to appropriate regulations, documentation of the basis for the licensing decision, and consideration of enforcement history on renewals. The files were checked for orderliness and retention of necessary documents and supporting data.

With the exception of minor deficiencies in documentation, the technical quality of the licensing actions was found to be adequate. The licensing actions were found to be thorough, complete, consistent, and of acceptable quality with health and safety issues properly addressed. Tie-down and specific conditions were clearly stated, backed by information contained in the file and are considered to be reviewable at inspection. For terminated licenses, close-out inspections and surveys were conducted where appropriate. License termination procedures were found to be consistent with those used by NRC.

Kansas RHS-15 "Radioactive Materials License Renewal In Its Entirety" specifies the policy concerning renewal-in-its-entirety of licenses. This policy also permits previously submitted documents to be used if they are identified by the licensee and the licensee confirms that they are still current.

Questions developed during the casework reviews were resolved in discussions with program staff. The licensing actions reviewed satisfied the guidelines.

#### 19. Adequacy of Product Evaluations (Category I)

##### NRC Guidelines

RCP evaluations of manufacturer's or distributor's data on sealed sources and devices outlined in NRC, State or appropriate ANSI Guides should be sufficient to assure integrity and safety for users.

The RCP should review manufacturer's information in labels and brochures relating to radiation health and safety, assay, and calibration procedures for adequacy.

Approval documents for sealed source or device designs should be clear, complete and accurate as to isotopes, forms, quantities, uses, drawing identifications, and permissive or restrictive conditions.

Approval documents for radioactive waste packages, solidification and stabilization media, or other vendor products used to treat radioactive waste for disposal should be complete and accurate as to the use, capabilities, limitations, and site specific restrictions associated with each product.

#### Assessment

No product evaluations were conducted by the program during the review period. Since the termination by Coleman of the manufacture of gas lantern mantles using thorium, Kansas has no manufacturing licensees. Because of this, the program meets the guidelines currently but would need to adopt procedures similar to those used by NRC before conducting any product evaluations.

### 20. Licensing Procedures (Category II)

#### NRC Guidelines

The RCP should have internal licensing guides, checklists, and policy memoranda consistent with current NRC practice.

In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should have program specific licensing guides, plans, and procedures for license review; and policy memoranda which relate to specific aspects of waste disposal. The program should include the preparation of safety evaluation reports, product certifications, or similar documentation of license review and approval process.

License applicants (including applicants for renewals) should be furnished copies of applicable guides and regulatory positions.

The present compliance status of licensees should be considered in licensing actions.

Under the NRC Exchange-of-Information program, evaluation sheets, service licenses, and licenses authorizing distribution to general licensees should be submitted to NRC on a timely basis.

Standard license conditions comparable with current NRC standard license conditions should be used to expedite and provide uniformity in the licensing process.

Files should be maintained in an orderly fashion to allow fast, accurate retrieval of information and documentation of discussions and visits.

#### Assessment

Based on discussions with staff, the program's licensing procedures were not changed during the review period. Licensing manuals and checklists have been developed for the various classes of licensees, including industrial and gauging systems. Discussions with the program staff revealed that licensing guides are furnished to license applicants if requested or if the license application submitted demonstrates a need for guidance.

The program policy requires license reviewers to consider the licensee's compliance history before new licensing actions are completed. This practice was confirmed during the review of selected license files.

The program's standard license conditions are in the process of being revised to reflect amendments to their regulations. The change may allow the program to issue licenses with fewer standard license conditions while focusing on the more explicit regulations to highlight specific safety requirements.

All three staff members review license applications. Each licensing action receives a supervisory review and is signed by the section chief.

The license files are complete and are maintained in an orderly manner allowing for easy retrieval of information. Each file contains adequate licensing and compliance information and adequately supports the most recent licensing action.

The program currently does not have a separate written policy related to the evaluation of products or the sending of sealed source and device sheets and GL-distribution licenses to the NRC. However, as noted under the indicator "Adequacy of Product Evaluations," Kansas does not currently have licensees engaged in the manufacture or distribution of materials products.

## 21. Status of Inspection Program (Category I)

### NRC Guidelines

State RCP should maintain an inspection program adequate to assess licensee compliance with State regulations and license conditions. The inspection program in all States should provide for the inspection of licensee's waste generation activities under the State's jurisdiction.

In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should include provisions for pre-operational, operational, and post-operational facility inspections. The inspections should cover all program elements which are relevant at the time of the inspection and be performed independently of any resident inspector program. In addition, inspections should be conducted on a routine basis during the operation of the LLW facility, including inspection of incoming shipments and licensee site activities.

The RCP should maintain statistics which are adequate to permit program management to assess the status of the inspection program on a periodic basis. Information showing the number of inspections conducted, the number overdue, the length of time overdue and the priority categories should be readily available.

At least semiannual inspection planning should be done for the number of inspections to be performed, assignments to senior vs. junior staff, assignments to regions, identification of special needs and periodic status reports. When backlogs occur, the program should develop and implement a plan to reduce the backlog. The plan should identify priorities for inspections and establish target dates and milestones for assessing progress.

### Assessment

In responding to the questionnaire, the program listed three priority 2 and five priority 3 inspections as more than 50% overdue. At the time of the review, program staff indicated that the backlog had been reduced to a total of four licensees which included two licensees with intermittent operations, a "storage only" licensee which had been given a higher priority pending license renewal, and a priority 3 licensee that was inactive pending termination. In view of the particulars, this is not considered to be a significant backlog. The program plans to address these overdue inspections on an individual basis.

The program director maintains a database showing the current inspection status. Periodic printouts are produced from which inspection assignments to staff are made. The written procedures for this activity are contained in policies RHS-27 "Inspection Administrative Procedures," and RHS-29 "Inspection Tracking System." Procedure RHS-27 was updated since the last review and a copy of the updated procedure was returned along with the responses to the questionnaire. The procedure was reviewed and no deficiencies were noted. The remainder of the inspection program procedures are unchanged.

## 22. Inspection Frequency (Category I)

### NRC Guidelines

The RCP should establish an inspection priority system. The specific frequency of inspections should be based upon the potential hazards of licensed operations, e.g., major processors, and industrial radiographers should be inspected approximately annually. Smaller or less hazardous operations may be inspected less frequently. The minimum inspection frequency, including initial inspections, should be no less than the NRC system.

### Assessment

The Kansas inspection priority system is established in procedure RHS-7 "Inspection Priority System Radioactive Materials," which was updated since the previous review to conform with the inspection priorities in NRC Inspection Manual Chapter 2800. The inspection frequencies established are the same or more frequent than the NRC frequency for equivalent licensees.

## 23. Inspector's Performance and Capability (Category I)

### NRC Guidelines

Inspectors should be competent to evaluate health and safety problems and to determine compliance with State regulations. Inspectors must demonstrate to supervision an understanding of regulations, inspection guides, and policies prior to independently conducting inspections.

For the inspection of complex licensed activities such as permanent low-level radioactive waste disposal facilities, a multi-disciplinary team approach is desirable to assure a complete compliance assessment.

The compliance supervisor (may be RCP manager) should conduct annual field evaluations of each inspector to assess performance and assure application of appropriate and consistent policies and guides.

### Assessment

Based on the review of the compliance files and the field accompaniment of one inspector, it was determined that the program meets the applicable guidelines. The supervisor did not accompany one inspector during 1994; however, he noted that this inspector had completed his training during 1993 and was accompanied several times in that process. It was further noted that this inspector has considerable experience as an inspector in compliance programs other than radiation control.

The inspector in question was accompanied by the lead reviewer during a partial inspection of a large medical facility. The licensee inspected was authorized to conduct both nuclear medicine and teletherapy. The inspection consisted of an audit of selected records, a tour of the nuclear medicine and

teletherapy patient areas, the nuclear medicine "hot lab", and the licensee's storage facility, as well as interviews with licensee staff and management. The inspector had audited the licensee previously, and so had considerable background knowledge of the program. The inspector was thorough, well organized and used an appropriate inspection report form to document his findings.

#### 24. Responses to Incidents and Alleged Incidents (Category I)

##### NRC Guidelines

Inquiries should be promptly made to evaluate the need for onsite investigations.

Onsite investigations should be promptly made of incidents requiring reporting to the agency in less than 30 days (10 CFR 20.403 types).

For those incidents not requiring reporting to the agency in less than 30 days, investigations should be made during the next scheduled inspection.

Onsite investigations should be promptly made of non-reportable incidents which may be of significant public interest and concern, e.g., transportation accidents.

Investigations should include in-depth reviews of circumstances and should be completed on a high priority basis. When appropriate, investigations should include reenactments and time-study measurements (normally within a few days). Investigation (or inspection) results should be documented and enforcement action taken when appropriate.

State licensees and the NRC should be notified of pertinent information about any incident which could be relevant to other licensed operations (e.g., equipment failure, improper operating procedures).

Information on incidents involving failure of equipment should be provided to the agency responsible for evaluation of the device for an assessment of possible generic design deficiency.

The RCP should have access to medical consultants when needed to diagnose or treat radiation injuries. The RCP should use other technical consultants for special problems when needed.

##### Assessment

The program's incident files were reviewed and found to be in good order based on review of the casework of 17 incident and allegation files and discussions with program management. Approximately 25 reports of materials incidents or allegations were received during the review period, and 3 on-site investigations were conducted. The majority of the incidents reported were diagnostic misadministrations not reportable under current NRC rules. The other incidents which were not investigated were either allegations which proved unfounded or provided insufficient information for follow-up, or were appropriate for follow-up at the next inspection.

The State's investigations of event circumstances were thorough, were performed with regard to safety, and were well documented. In all cases, State response actions to incidents and alleged incidents were timely. These included both 10 CFR 20.2202 reportable events, incidents requiring immediate

action, and less significant events followed-up during the next scheduled inspection.

Enforcement actions taken for violations discovered during the investigation of incidents were limited to notices of violations for reporting requirements and appeared adequate. Although diagnostic and therapeutic misadministrations were identified during the review period, the State has not adopted the Quality Management rule to permit citations against medical treatment plans. Interviews with program staff members disclosed that the program does follow-up on misadministrations to assure proper notifications, but documentation of the follow-up is not always placed in the file.

There were no cases of equipment failure or defects related to 10 CFR Part 21 which could affect other licensed operations.

The State's incident response procedures and actions are adequate to meet the guidelines.

## 25. Enforcement Procedures (Category I)

### NRC Guidelines

Enforcement procedures should be sufficient to provide a substantial deterrent to licensee noncompliance with regulatory requirements. Provisions for the levying of monetary penalties are recommended.

Enforcement letters should be issued within 30 days following inspections and should employ appropriate regulatory language clearly specifying all items of noncompliance and health and safety matters identified during the inspection and referencing the appropriate regulation or license condition being violated.

Enforcement letters should specify the time period for the licensee to respond indicating corrective actions and actions taken to prevent recurrence (normally 20-30 days). The inspector and compliance supervisor should review licensee responses.

Licensee responses to enforcement letters should be promptly acknowledged as to adequacy and resolution of previously unresolved items.

Written procedures should exist for handling escalated enforcement cases of varying degrees.

Impounding of material should be in accordance with State administrative procedures.

Opportunity for hearings should be provided to assure impartial administration of the radiation control program.

### Assessment

Pertinent written procedures are contained in RHS-24, "Escalated Enforcement Action Procedures," which includes the procedures for impounding; RHS-44, "Civil Penalties"; and RHS-27 "Inspection Administrative Procedures." These procedures had been updated since the previous review. The updated procedures were checked for content.

The review of inspection files revealed that the procedures are being followed. The procedure in RHS-27 calls for enforcement letters to be issued within 30 days after the inspection, and this was confirmed in the files

reviewed except for one case which required 39 days. The procedure also requires the letter to contain a specific date by which the licensee is to reply. The time to be allotted to the licensee for reply is not specified in the policy, however, discussions with staff and management indicate that 30 days is the standard. The letters reviewed met the guidelines for content.

There is usually no documentation of the review of the licensee response in the file, other than a copy of the acknowledgement letter. The handling of licensee responses was discussed with the program staff and management, and it was found that the usual practice has been for the inspector and section chief to sign off, after reviewing the response, on a routing slip which was subsequently discarded. The section chief indicated that he had previously identified this as a concern and was preparing an improved procedure.

The written procedures require a formal acknowledgement letter and further require that compliance actions must be completed within 90 days after inspection unless the section chief authorizes an extension.

## 26. Inspection Procedures (Category II)

### NRC Guidelines

Inspection guides consistent with current NRC guidance, should be used by inspectors to assure uniform and complete inspection practices and provide technical guidance in the inspection of licensed programs. NRC Guides may be used if properly supplemented by policy memoranda, agency interpretations, etc.

Written inspection policies should be issued to establish a policy for conducting unannounced inspections, obtaining corrective action, following up and closing out previous violations, interviewing workers and observing operations, assuring exit interviews with management, and issuing appropriate notification of violations of health and safety problems.

Procedures should be established for maintaining licensees' compliance histories.

Oral briefing of supervisors or the senior inspector should be performed upon return from non-routine inspections.

For States with separate licensing and inspection staffs, procedures should be established for feedback of information to license reviewers.

### Assessment

The program has a set of procedures in the RHS Handbook which address the activities of the inspection program. The activities specifically mentioned in the guidelines are addressed in RHS-27 "Inspection Administrative Procedures," and RHS-28 "Inspection Report Forms." Other procedures which address the inspection program activities include RHS numbers 3, 5, 7, 25, 29 and 38.

It is noted with respect to the guideline on oral briefing of supervisors that the standard practice in the section is for the supervisor to debrief inspectors upon return to the office from all inspections, not just non-routine ones. This is not incorporated into the RHS-27 administrative procedure; however, no recommendation is offered since the variation from the procedure is not reducing the program performance.

27. Inspection Reports (Category II)

NRC Guidelines

Findings of inspections should be documented in a report describing the scope of inspections, substantiating all items of noncompliance and health and safety matters, describing the scope of the licensees' programs, and indicating the substance of discussions with licensee management and licensee's response.

Reports should uniformly and adequately document the result of inspections including confirmatory measurements, status of previous noncompliance and identify areas of the licensee's program which should receive special attention at the next inspection. Reports should show the status of previous noncompliance and the results of confirmatory measurements made by the inspector.

Assessment

Inspection reports are prepared using standard forms and supplements according to procedure RHS-28 "Inspection Report Forms." According to program staff and management, the procedure is unchanged since the last review. The form itself also remains basically the same, however, it has evolved some in detail based on the inspector's experience in its use. The program was in the process of developing additional refinements, among which was a formal sign-off for peer and supervisory reviews.

The reports reviewed as casework were in general accordance with the procedures and addressed the status of previous non-compliances and confirmatory measurements where appropriate. It was noted that the decision to take or not take confirmatory measurements is left to the inspector.

28. Confirmatory Measurements (Category II)

NRC Guidelines

Confirmatory measurements should be sufficient in number and type to ensure the licensee's control of materials and to validate the licensee's measurements. In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, access to testing should be available on an "as needed" basis for confirming licensees' and applicants' programs for measurements related to nonradiological aspects of facility operations, such as soils and materials testing, environmental sampling and analysis to demonstrate compliance with 10 CFR Part 61 or compatible Agreement State regulations, and ensure facility performance. Conditions for nonradiological testing should be prescribed in plans or procedures.

RCP instrumentation should be adequate for surveying license operations (e.g., survey meters, air samples, lab counting equipment for smears, identification of isotopes, etc.).

RCP instrumentation should include the following types: GM Survey Meter, 0-50 mR/hr; Ion Chamber Survey Meter, several R/hr; micro-R-Survey meter; Neutron Survey Meter, Fast and Thermal; Alpha Survey Meter, 0-1,000,000 c/m; Air Samplers, Hi and Lo Volume; Lab Counters, Detect 0.001 uC/wipe; Velometers; Smoke Tubes; and Lapel Air samplers.

Instrument calibration services or facilities should be readily available and appropriate for instrumentation used. Licensee equipment and facilities

should not be used unless under a service contract. Exceptions for other State Agencies, e.g., a State University, may be made.

Agency instruments used for surveys and confirmatory measurements should be calibrated within the same time interval as required of the licensee being inspected.

Assessment

There is a section in the standard inspection report form for confirmatory measurements. As noted in the section of this report entitled "Inspection Reports," it is up to the inspector to decide whether to take such measurements and what measurements or samples to take. The procedures addressing this inspection activity are unchanged since the last review and remain acceptable.

Radiation measuring equipment and sampling supplies meet the guidelines. The program maintains a central stock of equipment and supplies from which the inspectors draw as needed for each inspection, rather than assigning instruments to each individual inspector.

Responses by the program staff indicate that instrument calibration procedures and the frequency of calibrations are unchanged from the previous review.

Comments by the Reviewers and Other NRC Staff

1. Legal Authority

The Kansas statutes were not evaluated during this review.

2. Technical Advisory Committees

A review of the conflict of interest statute was not conducted.

3. Budget

Since there was no problem identified that related to funding, the issue of fees and the percentage of the budget offset by fees was not examined.

4. Laboratory Support

Since the laboratory equipment and procedures were unchanged since the last review, the laboratory section was not visited.

5. Administrative Procedures

An in-depth audit of the revised policies was not conducted.

6. Management

Other than to confirm that no changes had occurred, the management of the RESEPS was not studied.

7. Staff Continuity

On the basis of a low turnover rate, the reviewers did not further audit the program against the guidelines of this indicator.

8. Inspection Frequency

Due to time constraints, the individual priorities could not be checked against the latest changes to IMC 2800.

9. Enforcement Procedures

The updated procedures were checked for content, but were not analyzed in detail during this review.

10. Inspection Procedures

The procedures were examined for content but not reviewed in detail.

11. Inspection Reports

Since the applicable procedures were not audited in detail, a future review should evaluate whether the procedures provide adequate guidance to assure that all inspectors use the same criteria in deciding whether or not to take confirmatory measurements.

12. Confirmatory Measurements

Due to time constraints, the instrument calibration procedures and frequency were not audited during this review.