DATED: OCT 30, 1992

Mr. J. W. Luna, Commissioner Department of Environment and Conservation L and C Tower, 21st Floor Nashville, TN 37243-0435

Dear Mr. Luna:

This will acknowledge your letter dated August 11, 1992, and also confirms the discussion between Mr. Woodruff from our Region II Office and Mr. Mobley on September 3, 1992. Following our receipt of your letter dated August 11, 1992, we scheduled a follow-up review of your Radiation Control Program with Mr. Mobley for August 31 and September 3, 1992. The discussion with Mr. Mobley on September 3, 1992 in Nashville was to discuss the results of our follow-up review.

As a result of our follow-up review and the routine exchange of information between the Nuclear Regulatory Commission (NRC) and the Tennessee Division of Radiological Health (DRH), we still are unable to find that the Tennessee program for regulating agreement materials is adequate to protect the public health or that it is compatible with the regulatory programs of the NRC. An explanation of our policies and practices for reviewing Agreement State programs is included as Enclosure 1. Our conclusion is based upon significant problems that remain in two Category I indicators as discussed below and in Enclosure 2 which is a summary of the review findings discussed with Mr. Mobley during our exit meeting on September 3, 1992. As was noted at the time, specific responses to the above findings and the Enclosure 2 comments and recommendations are requested.

The status and compatibility of regulations is a significant Category I indicator. The DRH has made considerable progress in adopting regulations since our 1991 review; however, regulations equivalent to those in 10 CFR Part 39, "Licenses and Safety Requirements for Well Logging," have not been adopted and remain the primary obstacle in resolving this issue. We understand that you have approved the revised rule and that action on the regulation is currently in the State's Office of Attorney General. The status of the regulations which need to be adopted for compatibility are further discussed in Enclosure 2, comment number 1.

J. W. Luna

The status of the inspection program is also a significant Category I indicator that affects both adequacy and compatibility of the Tennessee program. We were pleased to learn that DRH has revised the State's priority system, and that an inspection plan has been developed and implemented. However, additional operating experience is needed under this revised inspection plan before a determination can be made regarding the Indicator. This indicator is discussed further under Enclosure 2, comment number 2.

We were very pleased with your efforts to recruit and hire additional staff as authorized by your legislature. This action appears to fully satisfy the comment and recommendation made in regard to this Staffing Level Indicator. However, we are concerned that this fine effort will be negated if the personnel package is not approved for the reclassification and salary adjustment of the DRH technical staff. We understand that the DRH staff have been informed that their reclassification can be expected by January of 1993. We would like to have the status on the package and the projected completion date.

We also discussed the new employee training that will be needed before the inspection plan can be fully implemented. Mr. Mobley related that he had proposed a plan for contracting a basic "Health Physics" course to be conducted by Oak Ridge Institute for Science and Education. We support this action, and after your staff has received the basic health physics training, we are prepared to offer additional specialized training at our training courses to the extent possible. This would include a special course on "Inspection Procedures" that could be provided during the first calendar quarter of 1993. We further propose to conduct this national course in Tennessee, thereby, facilitating attendance of the largest possible number of DRH staff.

Our letter of March 6, 1992 did not contain the "sixth" comment that was addressed during our exit meeting following the review in December of 1991. We apologize for any misunderstanding, and we have addressed this issue under Enclosure 2 Section, "Other Comment and Recommendation."

In accordance with NRC practice, a copy of this letter and the enclosures are provided for placement in the State Public Document Room or otherwise to be made available for public examination.

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We appreciate the courtesy and cooperation extended by your staff to Mr. Woodruff during the follow-up review.

Sincerely,

Carlton Kammerer, Director Office of State Programs

Enclosures: As stated

cc w/encls: Wayne K. Scharber, Assistant Commissioner Department of Environment and Conservation Bureau of Environment Kenneth W. Bunting, Administrator Land and Radiation Programs Administration Bureau of Environment Michael H. Mobley, Director Division of Radiological Health Bureau of Environment J. M. Taylor, Executive Director for Operations, NRC S. Ebneter, Regional Administrator, Region II, NRC NRC Public Document Room State Public Document Room State Liaison Officer

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Enclosures: As stated

cc w/encls: See next page.

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J. W. Luna

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cc w/encls: Wayne K. Scharber, Assistant Commissioner Department of Environment and Conservation Bureau of Environment Kenneth W. Bunting, Administrator Land and Radiation Programs Administration Bureau of Environment Michael H. Mobley, Director Division of Radiological Health Bureau of Environment J. M. Taylor, Executive Director for Operations, NRC S. Ebneter, Regional Administrator, Region II, NRC NRC Public Document Room State Public Document Room State Liaison Officer bcc w/encls: The Chairman Commissioner Rogers Commissioner Curtiss Commissioner Remick

Commissioner de Planque

## 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 <u>Federal Register</u> 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 and that the need of improvement in particular program areas is critical. 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. No significant items will be left unresolved over a prolonged period. 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. If the State program does not improve or if additional significant Category I deficiencies have developed, a staff finding that the program is not adequate will be considered and the NRC may institute proceedings to suspend or revoke all or part of the Agreement in accordance with Section 274j of the Act, as amended.

ENCLOSURE 1

### FOLLOW-UP REVIEW OF THE TENNESSEE RADIATION CONTROL PROGRAM

This report contains the reviewer's follow-up assessments of each Program Indicator Comment that was developed following our 1991 review. The original comments and recommendations from the 1991 review are repeated below and are followed by a current status report with a revised recommendation. The original comments were provided to the State in a letter to Commissioner J. W. Luna dated March 6, 1992. Commissioner Luna provided a response dated April 6, 1992, and NRC acknowledged his response on June 12, 1992. A second response to our comments was provided by Commissioner Luna dated August 11, 1992. Based upon the responses from the State, the reviewer scheduled a follow-up review with Mr. Mobley.

This follow-up review was conducted in Nashville, Tennessee on August 31 and September 3, 1992. The State officials were involved in other State and Federal meetings during this period; therefore, the Radiation Control Program (RCP) key staff members were interviewed as follows:

## <u>RCP Staff Person</u>

Interview date

| Mary Helen Short, Administrative Assistant Director |  |  |  |  |  |
|---|--|--|--|--|--|
| L. Eddie Nanney, Manager, Inspection & Enforcement  |  |  |  |  |  |
| Johnny C. Graves, Manager, Licensing & Registration |  |  |  |  |  |
| Charles P. West, Assistant Director                 |  |  |  |  |  |
| Michael H. Mobley, Director                         |  |  |  |  |  |

August 31, 1992 August 31, 1992 August 31, 1992 September 3, 1992 September 3, 1992

### CONCLUSION:

A statement of adequacy and compatibility was postponed following our 1991 program review. Our comments and recommendations consisted of two significant Category I comments, and three Category II comments. The RCP program has made considerable progress on the 1991 comments; however, only one comment (Staffing Level) could be closed out during the review. The remaining comments are all in various stages of resolution and will be discussed below. As the result of this review, the staff was unable to offer a finding of adequacy or compatibility.

# FOLLOW-UP ASSESSMENTS TO THE 1991 COMMENTS AND RECOMMENDATIONS

1. The Status and Compatibility of Regulations is a Category I Indicator. We consider the following comment to be significant.

## COMMENT

For those regulations adopted by NRC which are deemed to be a matter of strict compatibility, the State regulations should be amended to conform as soon as practicable but normally no later than three years. Normally, this time interval begins when the rule becomes effective. Several sections of 10 CFR Part 39 are subject to this policy.

ENCLOSURE 2

The DRH has moved to adopt compatible rules, but the rules have not become effective. "Well Logging Safety Requirements," compatible with 10 CFR Part 39, were adopted by the Division of Radiological Health (DRH) as rule 1200-2-12, and were scheduled to become effective on September 28, 1991. However, just prior to the effective date, a public hearing was requested under the State Administrative Procedures Act. The hearing was held and comments received by the DRH are being considered. The DRH projects that this rule will become effective during the first quarter of 1992.

The State will additionally need to adopt the following regulations by the dates shown in order to maintain compatibility:

"Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees" (10 CFR Parts 30, 40, and 70); April 7, 1993. State rules have been drafted, and a public hearing was held on January 30, 1992.

"Standards for Protection Against Radiation" (10 CFR Part 20); January 1, 1994. Compatible rules are being drafted by the DRH and there are tentative plans for a hearing on them during the summer of 1992.

"Safety Requirements for Radiographic Equipment" (10 CFR Part 34); January 10, 1994. State rules are under development by the DRH.

### RECOMMENDATION

It is recommended that the DRH continue working to adopt the regulations that are needed for compatibility as soon as possible. We also request that the State notify our Region II Office when the various rules become effective.

### Current Status

Progress was made by the State in updating their regulations; however, some of the rules that were drafted have not been adopted. The status of those rules that were needed for compatibility are as follows:

• "Requirements for Well Logging," 10 CFR Part 39 (52 FR 8225) were needed by July 14, 1990. DRH related that this proposed rule was signed by the Commissioner on May 13, 1992 and the rules are currently under consideration by the Tennessee Office of Attorney General. Tennessee does not currently have any well logging type licensees; however, this regulation is necessary for licensees operating in Tennessee under reciprocity, and failure to adopt this rule is the major obstacle in providing a positive finding for this Indicator.

- 0 "Decommissioning," 10 CFR Parts 30, 40, and 70 amendments (53 FR 24018) were needed by July 27, 1991. The State adopted decommissioning provisions in 1982, prior to NRC's rule that became effective on July 27, 1988. As a result of additional State Legislative actions, the Program revised their decommissioning rule again on December 6, 1987 to be more in line with the financial assurance requirements of the hazardous waste program of the Environmental Protection Agency (EPA), which allows for "self-insurance." In 1990, the NRC reviewed the Tennessee decommissioning rule for compatibility and expressed concerns to the State on the State's recognition of "self-insurance" and "corporate guarantees" by companies that are able to satisfy certain financial tests. The Program responded to the NRC concerns in a letter from the Assistant Director dated March 1, 1991, and requested additional consideration be given to the content of the Tennessee regulations. The OSP staff has this rule under consideration and at this time the issue does not appear to be a matter of compatibility.
- "Emergency Planning Rule," 10 CFR Parts 30, 40, and 70 amendments (54 FR 14051) are needed by April 7, 1993. The State adopted these regulations and the regulations became effective on May 15, 1992. This item is closed.
- "Safety Requirements for Industrial Radiographic Equipment," 10 CFR Part 34 amendment (55 FR 843) is needed by January 10, 1994. The regulations have been drafted and a public hearing was scheduled for September 16, 1992. The State projects that this rule will become effective in January of 1993. The proposed rule has been sent to OSP for a compatibility review.
- Standards for Protection Against Radiation," 10 CFR Part 20 amendment (56 FR 61352) is needed by January 1, 1994. The State has drafted and distributed copies of this revision. A public hearing on this rule was held on August 17, 18 and 21, 1992. The revised rule has also been sent to OSP for a compatibility determination. The State projects that this rule will become effective in January of 1993.

### Follow-up Recommendation

We recommend that the State continue their efforts to update the regulations that are needed for compatibility, and to notify the NRC Region II Office when the rules become effective.

2. The Status of the Inspection Program is a Category I indicator. We consider the following comment to be significant.

### COMMENT

Data provided by the DRH shows that the program has 130 licenses that are overdue for inspection. Of these, 15 are priority I licenses that are overdue by more than 50 percent of their normal inspection intervals. They range from 12 to 38 months overdue. The DRH also has 24 priority IV licenses that are overdue for their initial inspection.

The DRH has a plan for inspection of certain "priority classes" of licenses and X-ray facilities as staff resources become available. This plan calls for the integration of the X-ray inspections into the inspection schedule for material licenses. The first "priority class" includes all of the material licenses that are inspected on a six month frequency. The second "priority class" includes essentially all of the medical X-ray facilities. The third "priority class" includes all of the materials licenses with inspection intervals of one to three years that are overdue by more than 50% of their inspection interval. The remaining priority I through III materials licenses that are overdue, and priority IV and V materials licenses that are overdue by more than 50% of their inspection interval comprise "priority class" four. The fifth "priority class" includes veterinary X-ray facilities and the remaining priority IV and V material licenses that are overdue. The The The sixth "priority class" includes all priority VII material licenses.

It was noted that the area office supervisors are the only persons that are fully trained to perform material license inspections. When combined with other supervisory duties, major X-ray facility inspections, and training new personnel, the lack of qualified inspectors reduces the effectiveness of the above inspection plan. In some instances, the area offices inspection schedules have not progressed beyond the second "priority class" facilities, which allows the overdue materials licenses to become more overdue.

### RECOMMENDATION

It is recommended that the DRH reevaluate the inspection plan and assign the material licenses in priorities I through III that are overdue by more than 50% of their inspection frequencies, and the material licenses that have never been inspected, to a higher "priority class."

#### CURRENT STATUS

The Program has continued their inspections of the major facilities assigned to the "first priority class" of inspections, the facilities having the greatest potential for health and safety problems. However, as predicted in the above comment, the overall numbers of overdue inspections continued to increase. The Program had 233 overdue inspections at the end of March 1992. As additional personnel were hired and qualified to perform materials inspections, greater emphasis was placed upon the inspection of overdue facilities. The Program now has thirteen persons that are qualified to perform material inspections.

On July 29, 1992, the Inspection and Enforcement Manager developed a new schedule for the inspection of materials licensees. The schedule places more emphasis on the inspection of licenses in priorities I through III that are overdue by more than 50% of their inspection frequencies, licenses that have never been inspected, and priority IV and V licenses that are overdue by more than 100% of their inspection frequencies.

The inspection of X-ray facilities was moved to a lower priority. The inspection plan also has a "matrix" that projects the inspection workload for each of the four Area Compliance Offices over the next eighteen months. The plan calls for the inspection of 476 licenses over the next eighteen months, and the backlog to be eliminated by the end of the 1993 calendar year. Updated quarterly inspection statistics were not available at the time of the review (September 3, 1992); however, discussions with the Inspection and Compliance Manager revealed that the new inspection plan schedule was being maintained.

### FOLLOW-UP RECOMMENDATION

We recommend that the DRH continue with the implementation of the revised inspection plan for the elimination of the overdue inspections.

3. Staff Continuity is a Category II Indicator.

#### COMMENT

The program has lost 23 technical staff members within the past four years, 12 within this review period. Data maintained by the DRH indicates that 18 of the 23 listed "salary" as a reason for leaving the program. The 23 staff lost also represent over 45 years of technical experience lost, and 97 weeks of technical training lost from the program.

During the 1989 review, we recommended that the job classifications and respective salary ranges be reviewed and upgraded as needed to provide better staff continuity. This recommendation was revisited again during the 1990 follow-up review, and Mr. Scharber related that a reclassification package was being actively pursued.

During the visit in July of 1991, we learned that the reclassification package had been submitted in final form to the Bureau of Environment Office on January 24, 1991, and that the package had received a favorable review by the personnel office staff. However, during this review we learned that the reclassification package is still in the Commissioner's Office and that no action has been taken.

The average of the mid-range salaries for entry level positions in the other seven southeastern Agreement States is 27,015 dollars, annually. The current salary ranges provided by the DRH reveals that the mid-range salary for the entry level position Environmental Specialist I is 19,050 dollars, or 7,965 dollars below the comparable salary in the other southeastern States.

#### RECOMMENDATION

We recommend that the State expedite to the maximum extent practicable the reclassification of the DRH technical staff positions, and to upgrade the salaries accordingly.

## CURRENT STATUS

The Program Director and his managers could not provide written documentation concerning the status of the personnel package that addresses the reclassification of the DRH staff. However, our discussions revealed that new job descriptions were submitted to the Personnel Department during the months of May and June, and that

position audits have been conducted in three of the area offices. We also understand that all Environmental Specialist positions are being reevaluated, and that personnel action to reclassify the staff to Health Physicist positions could be expected by the first of the year.

#### FOLLOW-UP RECOMMENDATION

We again recommend that the State expedite to the maximum extent practicable the reclassification of the DRH technical staff positions, and to upgrade the salaries accordingly.

4. Staffing Level is a Category II Indicator.

#### COMMENT

An analysis of the current organizational chart and the reviewer's discussions with program managers, revealed that the State Personnel Office has established 16 new positions for the program. The organizational chart also shows 8 vacant positions. During the review, the program received authorization to fill 9 of the positions.

#### RECOMMENDATION

It is recommended that the State continue their efforts to recruit and fill the vacant positions.

#### CURRENT STATUS

The State has continued their efforts to recruit and fill the vacant positions. Since the last review, the program has filled the vacant positions with the hiring of 12 new technical persons, and 5 new administrative persons. The current staffing level is a total of 59 positions (33 technical positions), with 19.9 FTEs allocated to the Radioactive Materials Program. In addition, the State legislature has authorized 18 more new positions for the program, and efforts are underway to fill the positions. The Program Director has stated that he intends to address all of the Radiation Control Program needs. The current staffing level meets our policy guidance relative to this

### Indicator.

### 5. Administrative Procedures is a Category II Indicator.

#### COMMENT

The DRH should establish written internal procedures sufficient to assure that the staff performs its duties as required, and to provide a high degree of uniformity and continuity in regulatory practices. Since the last review, the DRH has revised several administrative procedures, including procedures for handling "Incidents" and "Abnormal Occurrences," and for responding to "Complaints and Allegations." However, these procedures do not provide full details on how the "incidents," "allegations," and "complaints" are to be tracked and managed. During the review of the incident files, the program staff had difficulty in locating the 1991 incident files that were being maintained by the Assistant Director (the Assistant Director was out of the office). The reviewer was unable to determine the completeness of the files, and the status (open or closed) of the "incidents" and "allegations" that were received or documented during 1991.

In addition, NRC requested by letter dated December 10, 1990, a summary of all incidents for the calendar year of 1990. The DRH was unable to honor this request because the incident file summaries were not on the computer system, and because DRH management considered it to be an unnecessary duplication of staff effort to manually develop a list of incident summaries. Annual summaries of incidents are requested from all Agreement States and are analyzed by NRC to identify problems or trends in radiation safety needing regulatory attention.

### RECOMMENDATION

It is recommended that the DRH revise and upgrade the procedure to provide for full tracking of "incidents" and "allegations" even in the absence of particular staff members. If practicable, this should include computerization of the data base. These procedures should include provisions for providing summaries to NRC for inclusion in the national database and should be incorporated into the program's administrative procedures.

## CURRENT STATUS

Some progress was made in that incident summaries for the years 1990 and 1991 were received. However, the State still relies upon a manual system for tracking allegations and incidents.

#### FOLLOW-UP COMMENT

There still remains some confusion concerning the form to use for reporting significant incidents (events), and when the information (written report) should to be sent to the NRC. The incident information should be reported to the NRC on the suggested forms that were supplied to you in the All Agreement States letter, ANNUAL SUMMARIES OF INCIDENTS (SP-92-009), or equivalent forms having all of the pertinent information.

<u>Significant</u> incidents should be reported to the Regional State Agreements Officer by telephone, followed by the written report. These incidents (events) are then included in the NRC quarterly Abnormal Occurrence Report to Congress, as appropriate. This information should be timely, and the reports are independent of the annual summaries requested at the beginning of each year.

The annual summary requested at the beginning of each year should include <u>all</u> incidents involving radioactive materials including misadministration events that occurred during the previous year. These event reports should contain the same information as noted above. The event summaries are collected from all States and analyzed by our Office for Analysis and Evaluation of Operational Data (AEOD), published and distributed in conjunction with the AEOD Annual Report on Non-Reactor Events.

We recognize that this reporting may involve some duplication; however, the duplicate effort will be minimized if the event information is entered and tracked on your computer system.

### FOLLOW-UP RECOMMENDATION

It is recommended that the DRH enter the allegation and incident reports data into the computer system to provide for better tracking of the events and recovery of data, and revise and upgrade the administrative procedures to reflect the appropriate changes.

### ADDITIONAL COMMENT AND RECOMMENDATION

During our 1991 review, the reviewer discussed a "sixth" comment with the Program staff during the staff exit meeting at the end of the review. However, this "sixth" comment and recommendation was inadvertently left out of the comment letter that was issued. This recommendation was in support of a need identified by the State's technical staff.

#### COMMENT

The State's Radiation Control Program should have the equipment needed to detect, identify, and quantify radionuclide contamination in the public domain. A portable multiple channel analyzer (MCA) is recommended to provide timely and accurate information capabilities for the program. Several instances have occurred in recent years where this type of instrument capability was needed, and would have saved considerable resources if the instrumentation had been available. During our exit meeting with the staff, we learned that the State had considered acquiring a portable MCA type instrument.

### RECOMMENDATION

We recommend that the State follow through with their efforts to purchase a portable MCA for use under routine and emergency conditions.

### EXIT MEETING

An informal exit meeting was held with Mr. Mobley on the afternoon of September 3, 1992. An earlier attempt to meet with Commissioner Luna and Mr. Scharber was unsuccessful in that they were involved in other meetings. The status of the five comments was discussed in general with Mr. Mobley, and we also discussed Mr. Mobley's plans for training the new employees. The reviewer related that the NRC would provide assistance to the State through our training courses sponsored by the Office of State Programs to the extent possible, and that an Inspection Procedures Course could be provided to the State after the new employees had received the basic training in Health Physics. In reply, Mr. Mobley related that the State was considering his proposal to contract a special "Five Week Health Physics Course" taught by Oak Ridge Institute for Science and Education and that the new employees will have received their health physics training by the first of the year. An Inspection Procedures course was tentatively planned for the first quarter of 1993.