

JUN - 3 1996

ALL AGREEMENT STATES
MASSACHUSETTS, OHIO, OKLAHOMA, PENNSYLVANIA

TRANSMITTAL OF STATE AGREEMENTS PROGRAM INFORMATION (SP-96-059)

Your attention is invited to the enclosed correspondence which contains:

INCIDENT AND EVENT INFORMATION.....

PROGRAM MANAGEMENT INFORMATION.....XX

REQUEST FOR COMMENTS ON
LOW-LEVEL RADIOACTIVE WASTE
DISPOSAL PROGRAM NON-COMMON
PERFORMANCE INDICATOR

TRAINING COURSE INFORMATION.....

TECHNICAL INFORMATION.....

OTHER INFORMATION.....

Supplementary information:

Enclosed for your review and comment, is the draft description of the non-common performance indicator "Low-Level Radioactive Waste Disposal Program" and the evaluation criteria to be used for this indicator during the interim implementation of IMPEP. This criteria was field tested during the North Carolina IMPEP review in December 1995. We would appreciate your comments by July 31, 1996.

If you have any questions regarding this correspondence, please contact me or the individual named below.

POINT OF CONTACT: Kathleen N. Schneider
TELEPHONE: (301) 415-2320
FAX: (301) 415-3502
INTERNET: KXS@NRC.GOV

Original Signed By:
PAUL H. LOHAUS

Paul H. Lohaus, Deputy Director
Office of State Programs

Enclosures:
As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 3, 1996

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DRAFT FOR COMMENTS¹

**LOW-LEVEL RADIOACTIVE WASTE DISPOSAL PROGRAM
NON-COMMON INDICATOR**

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PART II

Non Common Performance Indicators

General

The following paragraphs provide a description of the non common performance indicators to be evaluated for each region and Agreement State as appropriate. The evaluation criteria (i.e. performance standards) against which these indicators are to be assessed are described in Part III.

The performance indicators should be used as a starting point of inquiry. This, in turn, should lead program evaluators to a more careful examination of the underlying conditions, or "root causes" of potential problem areas. Evaluators may find correlations exist between two or more areas within the performance indicators. In this situation, the impact of individual area symptoms could be compounded when combined with others. Conversely, a regulatory program measured as potentially weak against one particular area could, nonetheless, be rated as strong overall, if there are sufficient mitigating factors or strengths in other areas.

Non Common Performance Indicator - Low-Level Radioactive Waste Disposal Program

To evaluate the performance of the Agreement State programs in an IMPEP fashion, five areas will be evaluated to determine if the performance of the Agreement States' Low-Level Radioactive Waste Disposal Program is adequate.

1. Status of Low-Level Radioactive Waste Disposal Inspection

Periodic inspections of low-level radioactive waste disposal facilities, from the pre-operational through the post-closure phase are essential to ensure that activities are being conducted in compliance with regulatory requirements and consistent with good safety practices. Siting and construction phase inspections are essential to ensure the facility is being sited and constructed in accordance with regulatory and license requirements. Operational phase inspections are essential for ensuring that disposal activities are being conducted in accordance with license conditions and regulatory requirements. Closure and post-closure inspections are essential to ensure activities at closure are being conducted in compliance with the regulatory requirements and the facility is performing as expected. The frequency of inspections for operating low-level radioactive waste disposal facilities is specified in NRC

Inspection Manual Chapter 2800 as yearly. Inspection frequencies for non-operational phase inspections should be established. There must be a capability for maintaining and retrieving statistical data on the status of the inspection program for the low-level radioactive waste disposal program.

2. Technical Staffing and Training

The ability to conduct effective licensing and inspection programs for a low-level radioactive waste program is dependent on having a sufficient number of experienced, knowledgeable, well-trained technical personnel (which can include contractual support or support from other state agencies). The staffing should be sufficient to enable the program to complete review of a new application within 15 months per the Low-Level Radioactive Waste Policy Amendments Act. Under certain conditions, staff turnover could have an adverse effect on the implementation of these programs, and thus could affect public health and safety.

Review of staffing requires a consideration and evaluation of the levels of training and qualifications of the technical staff. Professional staff should normally have bachelor's degrees or equivalent training in the physical, life or earth sciences, or engineering. Staff and support contractors qualifications, training and experience should also include the disciplines of health physics, civil or mechanical engineering, geology, hydrology, and other earth sciences, and environmental science. For the low-level radioactive waste program, additional requirements may be identified based on the specific areas of technology needed by the State.

A program for training and qualification of personnel should be present and adhered to in Agreement State programs. The evaluation standard measures the overall quality of training available to, and taken by, low-level radioactive waste program personnel. The training of staff can be accomplished through a combination of classroom requirements and practical on-the-job training. The staff should be afforded opportunities for training that are consistent with the needs of the low-level waste program, such as attendance at counterpart meetings, university programs and national conventions.

For this area, qualitative as well as quantitative measures must be considered. In particular, the reason for apparent trends in staffing must be explored. Is the rate of turnover and any understaffing symptomatic of a chronic problem or is it merely a short-term phenomenon? Why is turnover high? What steps are being taken to address this? What impact is it having on other areas?

3. Technical Quality of Licensing Actions

An acceptable program for licensing low-level radioactive waste disposal facilities ensures that the proposed waste disposal facilities will meet State licensing requirements for waste product and volume, qualifications of personnel, site characterization, performance assessment, 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. This may be accomplished through the preparation and use of internal licensing guides, policy memoranda, or use of NRC equivalent guides. Licensing decisions should be adequately documented through safety evaluation reports, or similar documentation of the license review and approval process. Opportunities for public hearings are provided in accordance with applicable State administrative procedure laws during the process of licensing a low-level radioactive waste disposal facility. Pre-licensing interactions with the applicant should be conducted to ensure clear communication of the regulatory requirements.

To evaluate the technical quality of the licensing program, a review of a technical aspect of a radioactive waste disposal licensing action (such as health physics, hydrology, structural engineering, etc.) will be conducted in addition to an evaluation of the license review process. Technical quality includes not only the review of completed actions, but also an examination of any ongoing requests for licenses or renewals that may have health and safety implications.

4. Technical Quality of Inspections

This area provides the qualitative balance to area 1 above, which looks at the status of the inspection program on a quantitative basis. Inspector accompaniments, including onsite resident inspectors, by review team members will be used to evaluate the knowledge and capabilities of Agreement State inspectors at low-level waste disposal facilities during the inspections discussed in area 1 above. These accompaniments will usually occur at a time other than the onsite review of the region or Agreement State. Reviews in this area focus on the scope, completeness, and technical accuracy of inspections and related documentation. Review teams will conduct in-depth, onsite reviews of completed inspection reports performed.

5. Response to Incidents and Allegations

The quality, thoroughness, and timeliness of the Agreement State's response to incidents, alleged incidents, and other allegations of

safety concerns regarding low-level radioactive waste program can have a direct bearing on public health and safety. A review of inspection and investigation reports will be conducted by the review team. A careful assessment of incident response and allegation investigation procedures, actual implementation of these procedures, internal and external coordination, and investigative and follow up procedures will be a significant indicator of the overall quality of the program.

PART III

Evaluation Criteria

States will be evaluated using the performance indicators described in Part II of this handbook. The following is a discussion of the evaluation criteria for a low-level radioactive waste program.

Non-common Performance Indicator - Low Level Radioactive Waste Disposal Program

Satisfactory. Low level waste disposal licensees are inspected at regular intervals in accordance with frequencies prescribed in NRC IMC 2800. Deviations from these schedules are normally coordinated between working staff and management. The inspection findings are communicated to licensees in a timely manner (30 calendar days as specified in IMC 0610-10). All non-operational phase inspections are conducted at the State's prescribed frequency.

Review indicates that the qualifications of the technical staff are commensurate with expertise identified as necessary to regulate a low-level radioactive waste disposal facility. The management has developed and implemented a training program for staff. Staff trends that could have an adverse impact on the quality of the program are tracked, analyzed and addressed.

Pre-licensing interactions with the applicant are occurring on a regular basis. Special license tie-down conditions are usually stated clearly and are inspectable. Deficiency letters are well-written and used at the proper time. Reviews of amendments and renewal applications demonstrate thorough analysis of a licensee's inspection and enforcement history. Applicable guidance documents are available to reviewers in most cases, and are generally followed. Public hearings in accordance to the State administrative laws have occurred. Review of certain technical aspects of the low level waste license files indicates that aspect of the license review is generally thorough, complete, consistent, and of acceptable technical quality. Health and safety issues are properly addressed. An evaluation of the license review process indicates that the processes is thorough and consistent. No potentially significant health and safety issues can be linked to licensing practices.

Accompaniments of inspectors combined with an onsite review of completed inspection files indicates inspection findings are usually well-founded and well-documented throughout the assessment period. A review of inspector field notes or completed reports, as appropriate indicates that most inspections are complete and reviewed promptly by supervisors or management. Procedures are in place and normally used to help identify root causes and poor licensee performance. In most instances,

follow up inspections address previously identified open items and/or past violations. Inspection findings generally lead to appropriate and prompt regulatory action. Supervisors accompany nearly all inspectors on an annual basis.

Incident response and allegation procedures are in place and followed in nearly all cases. Actions taken are appropriate, well-coordinated, and timely in most instances. Level of effort is usually commensurate with potential health and safety significance of incident. Investigative procedures are appropriate for incident. Corrective (enforcement or other) actions are adequately identified to the low-level waste licensee promptly and appropriate follow up measures are taken to assure prompt compliance. Follow up inspections are scheduled and completed, if necessary. Notification to NMSS, the Office for Analysis and Evaluation of Operational Data, or OSP, and others as may be appropriate, is usually performed in a timely fashion.

Satisfactory with Recommendations for Improvement. The licensee is inspected at intervals that exceed the IMC 2800 frequency by more than 25 percent. All non-operational phase inspections are conducted at intervals that exceed the State frequencies by more than 25 percent. Some of the inspection findings are delayed, or not communicated to licensees within 30 days.

Review determines the presence of some of the following conditions concerning technical staffing and training:

- o Some staff turnover that could adversely impact the low-level waste disposal program.
- o Some vacant positions not readily filled.
- o Some evidence of management attention or actions to deal with staffing problems.
- o Some of the low-level licensing and inspection personnel not making prompt progress in completing all of the training and qualification requirements. The training and qualification standards include areas that could be improved.
- o Some of the new staff is hired with little education or experience in physical and/or life sciences, materials licensing and inspection, civil or mechanical engineering, geology, hydrology, and other earth sciences, and environmental science.

Review indicates that some technical aspects of licensing do not fully address health and safety concerns or indicates problems with respect to thoroughness, completeness, consistency, clarity, technical quality, and adherence to existing guidance in licensing actions. Review indicates that there are areas that have not been fully addressed during the license process. Some aspects of the public hearings are not consistent with State administrative law or do not address some aspects of the licensing of a low-level waste disposal facility.

Review indicates that low-level waste disposal inspections do not fully address potentially important health and safety concerns or it indicates periodic problems with respect to completeness, adherence to procedures, management review, thoroughness, technical quality, and consistency. Review indicates that findings in inspection reports and inspection files are, on occasion, not well-founded or well-documented, and the review does not demonstrate an appropriate level of management review. Accompaniment of inspectors by supervisors are performed non-systematically. Follow-up actions to inspection findings are often not timely.

Incident response and allegation procedures are in place but occasionally not practiced in a detailed fashion. Performance is marginal in terms of resolving potential public health and safety issues, and not as well-coordinated, complete or timely as would be required under the "Satisfactory" performance standard.

Unsatisfactory. The licensee is inspected at intervals that exceed the IMC 2800 frequency by more than 100 percent. Non-operational phase inspections are conducted at intervals that exceed the State frequencies by more than 100 percent. Inspection findings are frequently delayed.

Review determines the presence of chronic or acute problems related to some of the following conditions, which cause concerns about their likely impacts on low-level waste program:

- o Significant staff turnover relative to the size of the program.
- o Most vacant positions not filled for extended periods.
- o Little evidence of management attention or actions to deal with staffing problems.
- o Most of the licensing and inspection personnel not making prompt progress in completing all of the training and qualification requirements.
- o New staff members are hired without having education or experience in physical and/or life sciences, materials licensing and inspection, civil or mechanical engineering, geology, hydrology, and other earth sciences, and environmental science.

Review indicates that technical aspects of the licensing actions frequently fail to address important health and safety concerns or indicates chronic problems with respect to thoroughness, completeness, consistency, clarity, technical quality, and adherence to existing guidance in licensing actions. Review indicates that there are areas that have not been addressed during the license process. Public hearings are not consistent with State administrative law or fail to address aspects of the licensing of a low-level waste disposal facility.

Review indicates that inspections (including construction phase and closure/monitoring phase) frequently fail to address potentially important health and safety concerns or it indicates chronic problems

exist with respect to completeness, adherence to procedures, management review, thoroughness, technical quality and consistency. Accompaniments of inspectors are infrequently performed. Follow-up actions to inspection findings are often not timely and appropriate.

Review indicates frequent examples of response to incidents or allegations to be incomplete, inappropriate, poorly-coordinated, or not timely. As a result, potential health and safety problems persist.

Category N. Not applicable.

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NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Paul H. Lohaus, Deputy Director
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DRAFT FOR COMMENTS¹

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- o Most of the licensing and inspection personnel not making prompt progress in completing all of the training and qualification requirements.
- o New staff members are hired without having education or experience in physical and/or life sciences, materials licensing and inspection, civil or mechanical engineering, geology, hydrology, and other earth sciences, and environmental science.

Review indicates that technical aspects of the licensing actions frequently fail to address important health and safety concerns or indicates chronic problems with respect to thoroughness, completeness, consistency, clarity, technical quality, and adherence to existing guidance in licensing actions. Review indicates that there are areas that have not been addressed during the license process. Public hearings are not consistent with State administrative law or fail to address aspects of the licensing of a low-level waste disposal facility.

Review indicates that inspections (including construction phase and closure/monitoring phase) frequently fail to address potentially important health and safety concerns or it indicates chronic problems

exist with respect to completeness, adherence to procedures, management review, thoroughness, technical quality and consistency. Accompaniments of inspectors are infrequently performed. Follow-up actions to inspection findings are often not timely and appropriate.

Review indicates frequent examples of response to incidents or allegations to be incomplete, inappropriate, poorly-coordinated, or not timely. As a result, potential health and safety problems persist.

Category N. Not applicable.