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ALL AGREEMENT STATES, CONNECTICUT, AND INDIANA

TRENDS FROM RECENT INTEGRATED MATERIALS PERFORMANCE EVALUATION
PROGRAM REVIEWS (STC-22-018)

Purpose: To inform Agreement State program staff of significant trends observed during recent Integrated Materials Performance Evaluation Program (IMPEP) reviews.

Background: The U.S. Nuclear Regulatory Commission (NRC) uses IMPEP to periodically review the NRC and Agreement State radioactive materials programs to ensure that public health and safety are adequately protected from potential hazards associated with the use of radioactive materials and to ensure that Agreement State programs are compatible with the NRC's regulatory program.

During IMPEP reviews in 2021 and 2022, IMPEP teams consistently identified issues in the Technical Staffing and Training, Technical Quality of Licensing Actions, and Technical Quality of Incident and Allegation Activities performance indicators. Recurring challenges were identified with (1) the staffing of licensing and inspection programs, (2) the application of Pre-Licensing Guidance, NUREG-1556 and Risk Significant Radioactive Material (RSRM) Checklist, and (3) the reporting requirements of 10 CFR 20.2201(a)(1)(ii).

Discussion:

The Staffing of Licensing and Inspection Programs

The ability to implement effective licensing and inspection programs is largely dependent on having a sufficient number of experienced, knowledgeable, and well-trained personnel. Program weaknesses can exist when only a single technical staff member performs licensing actions and/or if licensing information is only available to a single person. This type of staffing arrangement could result in delayed licensing actions. In addition, if coworkers do not have access to licensing records, it will prevent other qualified staff from performing the work. This staffing arrangement also has the potential to result in inconsistent peer reviews. As a result, the NRC is recommending that Agreement State management review their staffing and training needs, ensure licensing information is available to all staff, and consider cross-qualification of staff in order to implement a well-conceived and balanced staffing strategy to ensure the program's continued adequacy and compatibility.

The Application of Pre-Licensing Guidance, NUREG-1556, RSRM Checklist, and Financial Assurance

The pre-licensing guidance is an essential component of a licensing program. As outlined in NUREG-1556, the essential objectives of the pre-licensing guidance are:

- providing a basis of confidence that radioactive materials will be used as intended,

- performing site visits for “unknown” applicants, as defined in the pre-licensing guidance, and
- forwarding suspicious applications to the appropriate authority for follow-up.

Recently, several IMPEP review teams found that some programs are not requiring applicants to address all areas of the renewal application using the appropriate NUREG-1556 volume or other appropriate licensing guidance. As a result, renewal applications were incomplete and inconsistent, making it difficult for IMPEP team reviewers to identify the licensee’s commitments. In addition, if there were previous errors in the license, these errors remained on the license after the renewal process. IMPEP review teams also found that some licenses did not consistently possess standard license conditions for financial assurance. Of note, there was an instance where two license applications, that were approved, which requested unsealed radioactive material with half-lives exceeding 120 days in quantities were required to have financial assurance. The program neither collected financial assurance for these licensees, nor applied the unity rule to limit possession of these isotopes. The IMPEP team also identified two licenses with license conditions allowing possession of material exceeding financial assurance thresholds, but the restrictions specified in the financial assurance license conditions were inconsistent with the authorized license possession limits.

NRC and Agreement State programs should perform reviews of renewal applications in accordance with the criteria outlined in Section 4.4 of the NRC’s NUREG-1556, Volume 20, Revision 1, or equivalent Agreement State procedure. License reviewers should check the possession limits to ensure decommissioning financial assurance requirements remain adequate or are not required. If changes to the licensee’s possession limits invoke new requirements, a reviewer must ensure that the application contains the required documents. For those licensees that must provide a financial assurance instrument, a reviewer must ensure that the instrument is adequate for the current scope of the program.

IMPEP review teams evaluate the implementation of the RSRM checklist, which serves to:

- Aid license reviewers in determining whether a new applicant or existing licensee is requesting RSRM or requesting the addition of a nationally tracked source,
- Verify whether a new applicant has a thorough understanding of or has implemented the Part 37 Physical Protection Program by conducting an on-site security review, and
- Determine whether a new applicant or existing non-Manufacturing & Distribution service provider licensee is seeking unescorted access to RSRM at clients’ facilities and will therefore need to establish an access authorization program.

Recent IMPEP review teams found that program staff were either not aware of the RSRM checklist, were using an out-of-date version, or chose not to use it. In some cases, the most current version of the RSRM was available but the checklist was not used for all applicable actions. The checklist was not used when the program believed RSRM limits would not be reached. It is important to follow the guidance in NUREG-1556, which states that the checklist must be completed if an applicant is requesting a license authorizing possession of a Category 1 or Category 2 quantity of material, or if a licensee is requesting to add and/or remove a radionuclide or increase or reduce the possession limit of a radionuclide listed in the RSRM table. If the RSRM Checklist is not adopted and utilized, this could pose a security risk. The current RSRM checklist can be found in the NRC’s Material Security Toolbox, available at <https://scp.nrc.gov/controls.html>.

The Reporting Requirements of 10 CFR 20.2201(a)(1)(ii)

A notification to the NRC Operations Center is required per 10 CFR 20.2201(a)(1)(ii) if radioactive material greater than 10 times 10 CFR Part 20 Appendix C quantities, is lost or stolen. The notification must be reported to the Headquarters Operations Center (HOC) within 30 days after the occurrence becomes known. This notification requirement is not superseded by a NMED report. A written report is required to be submitted, in accordance with 10 CFR 22.2201(b), 30 days after the telephone report if there are additional details to provide. Recent IMPEP review teams found that, in some cases, reports were not made to the NRC's HOC, but were instead submitted directly to NMED. NRC procedure SA-300, *Reporting Material Events*, led many programs to conclude that these incidents only required a written report and did not require reporting to the HOC. The NRC recognizes that SA-300 identifies this incident as falling into the 5 to 60 days reporting category, and that pages 19 and 30 of SA-300 state that any incident requiring reporting between 5 and 60 days can be sent straight to NMED. A forthcoming revision to SA-300, which will be distributed for comment and feedback from Agreement States, will correct these procedural issues. The revised SA-300 Handbook, Appendix A, *NRC Regulatory Reporting Requirements*, will contain a chart which will clearly depict the reporting requirements for each applicable section of 10 CFR.

The NRC also intends to meet with the OAS Board and conduct a government to government meeting to discuss these issues in greater detail.

The NRC is committed to sponsoring training for Agreement State personnel. Training courses and other information resources can be found on the State Communications Portal at <https://scp.nrc.gov/training.html>. NRC will continue to use the IMPEP to review the NRC and Agreement State radioactive materials programs to ensure that our programs are adequate and compatible to protect public health and safety.

If you have any questions regarding this correspondence, please contact the individual named below:

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