

NRC INSPECTION MANUAL

RNRP

INSPECTION PROCEDURE 69007

CLASS I RESEARCH AND TEST REACTOR REVIEW AND AUDIT AND DESIGN CHANGE FUNCTIONS

PROGRAM APPLICABILITY: 2545

69007-01 INSPECTION OBJECTIVES

01.01 To determine if the licensee has established and conducted review and audit functions consistent with the technical specification (TS) requirements and the licensee's administrative controls, since the last inspection.

01.02 To determine if changes, to the facility were consistent with the requirements of 10 CFR 50.59, the TS, and the licensee's administrative controls, since the last inspection.

69007-02 INSPECTION REQUIREMENTS

02.01 Review and Audit Function

- a. Review and Audit Committee Personnel. Determine if the members of the review and audit committee were qualified as required by the TS and the Safety Analysis Report (SAR).
- b. Review and Audit Committee Meeting Reviews, Frequency and Quorum. Determine if the meeting review subjects, frequency and quorum were as required by TS for the review and audit committee.
- c. Review and Audit Committee Recommendations. Determine if the licensee implemented or resolved the recommendations of the review and audit committee as required by TS and licensee administrative controls.
- d. Audits. Determine if the licensee conducted audits in accordance with the TS and the licensee's administrative controls.
 1. Determine if the individuals conducting the audits were independent from the audited function, in accordance with the licensee's administrative controls.

2. Determine if the audit-identified problems were brought to the attention of the responsible individual and that they were acceptably resolved in accordance with the TS and the licensee's administrative controls.
3. Determine if the licensee's audit function or audit plan included the audit areas required by Section 6.0 of the TS.

02.02 Design Change Function

- a. General Review. Determine if the licensee's design changes were reviewed and approved in accordance with the TS and the licensee's administrative controls.
- b. Detailed Review. Determine if the licensee's design change process was in accordance with the requirements of 10 CFR 50.59, the TS, and the licensee's administrative controls.

69007-03 INSPECTION GUIDANCE

General Guidance

This inspection procedure includes the examination of the licensee's required programs to identify and resolve important issues in the review and audit, and design change processes. As required by licensee administrative controls, these processes should include the identification and resolution of problems in a timely and technically correct manner. The license conditions, administrative section of the TS, and the licensee's administrative controls and procedures provide the requirements for the review and audit function. Requirements for design changes are provided in 10 CFR 50.59, the TS and the licensee's administrative controls and procedures. Additional guidance may be found in the NRC Inspection Manual Guidance on 10 CFR, "10 CFR 50.59 - Changes, Tests and Experiments." Some inspection requirements in this procedure may duplicate other inspection procedure requirements, and the inspector should use professional judgement to not repeat the inspection observations, e.g., procedure change review may satisfy in part Inspection Procedure 69008 "Class I Research and Test Reactors Procedures."

General guidance may be found in the ANS Section 15 Standards as listed in Appendix B to Inspection Procedure 69001, "Class II Research and Test Reactors", and in the specific standards in the Reference section to this inspection procedure. Additional general guidance may be found in the Division 2 Regulatory Guides, and the "Other Regulatory Guides of Possible Interest to Division 2 Recipients" listed in the Division 2 Regulatory Guides Table of Contents. The reference to this guidance is to aid the inspector in technical evaluation of licensee programs and is not to be used as requirements on the licensee unless the licensee has committed in writing to the NRC to use the specific guidance document.

The sample sizes and resource estimates suggested in the inspection procedure are provided for broad planning purposes and to define the typical depth of the inspection. It is not intended to be a rigid requirement on the inspector. Actual inspection at any facility

may require more or less effort depending on past inspection history, conditions at the facility, and safety significance.

Specific Guidance

03.01 Review and Audit Function

- a. Review and Audit Committee Personnel. The inspector should examine the qualifications of all new members of the review and audit committee. TS generally provide the requirements for this inspection item. If the licensee had made no changes to the review and audit committee personnel, since the last inspection, the item may be omitted. Qualification records of committee members should be reviewed for initial verification. After the committee has been verified initially, only changes need be verified.
- b. Review and Audit Committee Meeting Reviews, Frequency and Quorum. The records for 50 percent, but no more than 3 of the committee meetings held since the last inspection, should provide an acceptable sample for this inspection requirement. Minutes of the safety review committee meetings should provide the records to verify this item. The inspector should briefly review all review and audit committee minutes to stay abreast of facility activities and conditions. The TS generally provide requirements for this inspection requirement of the review and audit committee. Substitution of personnel should also be in accordance with the TS and the licensee's administrative controls.
- c. Review and Audit Committee Recommendations. The records for 50 percent but no more than 3 of the committee meetings held since the last inspection should provide an acceptable sample for this inspection requirement. The inspector should pay particular attention to the committee's actions and recommendations on audits and facility events, and the related follow-up actions by the committee and line management. The recommendations of the licensee's audit and review committee should have been resolved and the resolutions communicated to responsible personnel, such as operators and experimenters.
- d. Audits. Audit requirements are generally in the administrative controls section of the TS, and the licensee's procedures. However, the requirements for audits are not uniform and may not be specified in the TS or the licensee's administrative controls, particularly at older facilities. If a safety or non-compliance issue raises the need for NRC required audits, the inspector should inform appropriate management, and the NRR project manager. Further, the inspector should consider indicating to the licensee that other licensees have found peer reviews to be useful to evaluate their programs, and that this may also be useful for this licensee.

If the licensee's audit function is identifying and resolving problems, the inspector should recognize this point with licensee management, and the inspector should assure that the inspection activity does not stifle a functional audit system. For example, even if the audit finds problems or violations, ensure that the licensee's management is informed that an audit system that functions properly will have

many safety benefits and the use should be encouraged. Upon the review of the safety significance of the violations identified by the audit system, the NRC should strongly consider the use of enforcement discretion as allowed by 10 CFR Part 2, Appendix C, to not penalize the licensee for discrepancies identified in an audit system that functions well.

The licensee's management should be able to discuss how concerns from the audits were resolved. Concerns or problems should be prioritized, assignments made, and corrective actions taken in a timely fashion in accordance with licensee procedures. The licensee's audits should assure that regulatory requirements, license and TS conditions, are satisfied, through the use of checklists and plans as required.

1. Review of three audits should provide an acceptable sample for this inspection requirement. TS and administrative control requirements provide the bases for this inspection item. Some facilities may use personnel from other research and test reactors to conduct required audits. In some facilities where there are limited staffs, it may be difficult to conduct truly independent audits. In such cases, the inspector should assure that the selected individual is qualified and given adequate guidance to perform a critical review of the function in accordance with licensee procedural requirements. Where audits are required, the inspector should review the audit reports to verify that they have been conducted as required.
2. The follow-up on 10 percent of the identified problems (not to exceed 10 problems) should be an acceptable sample for this inspection requirement. The inspector should use professional judgement to assure that the audits were technically competent and provided a critical assessment of the audited functions. The licensee's management should be able to discuss how concerns from the audits were resolved. Concerns or problems should be prioritized, assignments made, and corrective actions taken in accordance with licensee procedures.
3. No guidance needed.

03.02 Design Change Function

- a. General Review. The inspector should briefly review all the design changes since the last inspection. The TS and the licensee's administrative controls may require review and approvals by such groups as the licensee's safety review committee, and design, operation, maintenance, or technical support departments.
- b. Detailed Review. The inspector should perform a detailed review of design changes that may effect safety analysis assumptions, or affect personnel or public safety in another manner. This function is extremely important in that it assures the licensee is maintaining the facility within the bounds of the SAR. Minutes of safety review committee meetings may contain significant design change recommendations, and the inspector should verify that these recommendations were acceptably addressed in accordance with licensee procedures. Changes to

the facility described in the SAR are governed by the provisions of 10 CFR 50.59, and associated requirements in the TS and licensee administrative controls. Changes that meet the criteria of 10 CFR 50.59(c)(2)i through viii or that require a TS change must be reviewed and approved by NRR prior to implementation. The licensee's design change review process should verify that no license amendment or TS change is required. To resolve questions on the design features for a specific change, the inspector should review the SAR and the Safety Evaluation Reports (SERs) for additional information. The inspector should consult the appropriate management and the NRR project manager where further guidance is needed.

The TS and licensee's administrative requirements may include the following:

1. Acceptance and pre-operational tests for the design change to verify that the modified equipment operates consistently with the requirements in the TS and the SAR. Testing should acceptably ensure that the safety-related function as described in the SAR can be accomplished. This testing can include verification of related TS requirements. The records should contain the required information and evidence that appropriate individuals have approved the tests in accordance with the licensee's administrative controls.
2. Revisions to procedures required by TS and licensee procedures. If these procedures were described in the SAR or TS the provisions of 10 CFR 50.59 apply to the changes. Changes may involve operating, radiological control, maintenance, and surveillance testing procedures, as required by TS.
3. Revisions to facility's drawings to reflect the modification as required by administrative controls. The inspector should compare the prepared sketches, working drawings or other design change documents with the facility's current drawings that are used to show the as-built configuration. These current drawings should have been updated as required by the licensee's administrative controls.
4. Training of facility personnel for the specific modification as required by the licensee's administrative controls. Particular attention should be given to operator training requirements. Training should be consistent with the safety significance of the change. Training may include, but is not limited to, walk-throughs of the systems, briefings from supervisors, formal lectures, start-up testing, or review of the design change package. The licensee should conduct this training in accordance with the requirements of the operator requalification program and the licensee's administrative controls. If the inspector needs assistance in this area, the inspector should inform appropriate management, and the NRR project manager to initiate resolution. This resolution process may involve requesting an operator examiner or a training specialist to perform or assist in this review.

69007-04 RESOURCE ESTIMATE

For planning purposes, the direct inspection effort to complete this inspection procedure is estimated to be five hours.

69007-05 REFERENCES

ANSI/ANS 15.1, "The Development of Technical Specifications for Research Reactors," 1982.

ANSI/ANS 15.4, "The Selection and Training of Personnel for Research Reactors," 1977.

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