



U.S. NUCLEAR REGULATORY COMMISSION
STANDARD REVIEW PLAN
OFFICE OF NUCLEAR REACTOR REGULATION

13.4 OPERATIONAL REVIEW

REVIEW RESPONSIBILITIES

Primary - Licensee Qualification Branch (LQB)

Secondary - None

I. AREAS OF REVIEW

LQB reviews and evaluates the applicant's plan for conducting reviews of operating phase activities that are important to safety, as described in the applicant's Final Safety Analysis Report (FSAR). The primary focus of attention should be on the provisions that will be used to implement the licensee's responsibility relating to proposed changes, tests, and experiments, and on the procedures for after-the-fact review, evaluation of unplanned events, such as Licensee Event Reports, and on the provisions for the evaluation of plant operations. No information is required in the PSAR.

The FSAR should describe provisions for the plant operations review of operational activities, for the independent review of plant operations and for the independent assessment of activities for safety enhancement. Specific information to be reviewed is as follows:

1. How the onsite organization functions with respect to review of proposed changes to systems or procedures, tests, and experiments, and of unplanned events that have operational safety significance. This will include subject matter to be reviewed, organizational provisions for conducting the reviews including personnel, and the documentation and reporting of review activities.
2. The procedure and organization employed to examine safety-related operating activities independent of the operating organization. This will include how and when such a program is to be implemented, relative to fuel loading of the first unit, and include subject matter to be reviewed, organizational provisions for conducting the review including personnel, and the documentation and reporting of review activities.

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USNRC STANDARD REVIEW PLAN

Standard review plans are prepared for the guidance of the Office of Nuclear Reactor Regulation staff responsible for the review of applications to construct and operate nuclear power plants. These documents are made available to the public as part of the Commission's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Standard review plans are not substitutes for regulatory guides or the Commission's regulations and compliance with them is not required. The standard review plan sections are keyed to the Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants. Not all sections of the Standard Format have a corresponding review plan.

Published standard review plans will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience.

Comments and suggestions for improvement will be considered and should be sent to the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Washington, D.C. 20555.

3. The provisions employed to perform independent reviews and assessments of plant activities. This will include the functions of the review group, organizational provisions for conducting the activities, including personnel, and the documentation and reporting of these activities.

II. ACCEPTANCE CRITERIA

LQB acceptance criteria is based on meeting the relevant requirements of 10 CFR Part 50, §50.40(b) as it relates to the licensee being technically qualified to engage in licensed activities. Specific criteria necessary to meet the relevant requirements of §50.40(b) as they relate to items 1, 2, and 3 of subsection I listed above are as follows:

1. Plant Staff Review

- a. Scope of this review should include that of Section 4.4 of ANSI N18.7 (ANS 3.2), as endorsed by Regulatory Guide 1.33.
- b. Organizational arrangements should provide for interdisciplinary reviews of subject matter.
- c. Qualification levels for plant staff personnel performing review should be at least equivalent to those described in Section 4.4 of ANSI N18.1 as endorsed by Regulatory Guide 1.8.
- d. Review activities should be documented and results forwarded to appropriate members of management.

2. Independent Review

Provisions for independent review should meet that described in Section 4.3 of ANSI N18.7 (ANS 3.2), and the qualification requirements for those performing these reviews should meet or exceed those described in Section 4.7 of ANSI/ANS-3.1-1978 and the regulatory position of Regulatory Guide 1.8.

3. Independent Safety Engineering Group (ISEG)

The ISEG performs independent reviews of plant operations in accordance with the guidelines of item I.B.1.2 of NUREG-0660 and NUREG-0737.

- a. The functions of this group are independent of those performed to meet 1 and 2 above.
- b. The group shall be comprised of a minimum of five dedicated, full-time engineers, located onsite, but reporting offsite to a corporate official who holds a high-level, technically oriented position who is not in the management chain for power production. For utilities with multiple sites, it may be possible to perform portions of the independent safety assessment function in a centralized location for all the utility's plants. In such cases, an onsite group still is required, but it may be slightly smaller than would be the case if it were performing the entire independent safety assessment function. Such cases will be reviewed on a case-by-case basis.
- c. The group should function to examine plant operating characteristics, NRC issuances, Licensing Information Service advisories, and other appropriate

sources of plant design and operating experience information for areas for improving plant safety; and to maintain surveillance of plant operations and maintenance activities to provide independent verification that these activities are performed correctly and that human errors are reduced as far as practicable.

- d. The group is to perform independent reviews and audits of plant activities including maintenance, modifications, operational problems, and operational analysis, and aid in the establishment of programmatic requirements for plant activities.
- e. Qualification levels of persons performing this function shall meet or exceed that described in Section 4.4 of ANS 3.1, i.e., a bachelor's degree in engineering, and two to four years experience in their field, including one to two years nuclear experience.
- f. The group shall provide to management no less frequently than monthly a summary of their activities to advise utility management on the overall quality and safety of operations.

III. REVIEW PROCEDURES

Each element of the FSAR information is to be reviewed against this SRP section. The reviewer's judgment during the review is to be based on an inspection of the material presented, whether items of special safety significance are involved, and the magnitude and uniqueness of the project. Any exceptions or alternatives are to be carefully reviewed to assure they are clearly defined and that an adequate basis exists for acceptance. The applicant should identify the revision of references, regulatory guides and codes and standards used. The reviewer should identify the revision of references, regulatory guides and codes and standards used in the review.

The review of this section of the FSAR consists of an analysis of the information submitted by detailed comparison with the acceptance criteria of subsection II, above. When the reviewer has determined that the acceptance criteria stated above or their equivalent have been satisfactorily addressed in the applicant's plans for conducting reviews, the review of this section of the SAR is complete.

IV. EVALUATION FINDINGS

The reviewer verifies that the information presented and his review support conclusions of the following type, to be used in the staff's safety evaluation report:

The staff concludes the program for the review of plant operations is acceptable and contributes to meeting the requirements of 10 CFR Part 50, §50.40(b). This conclusion is based on the following:

The applicant's program for the review of plant operations is in conformance with staff guidance described in Regulatory Guide 1.33 and applicable industry standards (ANSI N18.7), and is acceptable. The applicant has described the program for the review of operational activities. The program includes reviews by the plant staff organization, reviews of safety-related activities independent of the operating organization, and independent reviews and assessments of plant activities

by an independent group located onsite. We have reviewed the provisions for these reviews in respect to organizational provisions, qualification requirements of those performing the review, and the subject matter to be reviewed. We find that the applicant's program for the review of operational activities is in conformance with staff guidance described in Regulatory Guide 1.33 and the applicable industry standard (ANSI N18.7); the qualifications levels for plant staff personnel performing reviews meets the guidelines of Regulatory Guide 1.8 and applicable industry standard ANSI N18.1, Section 4.4; the provisions for an independent review meets the guidelines of Regulatory Guide 1.33 and applicable industry standard ANSI N18.7 (ANSI 3.2), Section 4.3 and ANSI/ANS 3.1, Section 4.7; and the applicant's Independent Safety Engineering Group meets the guidelines of Section I.B.1.2 of NUREG-0737.

V. IMPLEMENTATION

The following is intended to provide guidance to applicants and licensees regarding the NRC staff's plans for using this SRP section.

Except in those cases in which the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the acceptance criteria described herein will be used by the staff in its evaluation of conformance with Commission regulations.

Implementation schedules for conformance to parts of the method discussed herein are contained in the referenced regulatory guides and NUREG.

VI. REFERENCES

1. 10 CFR Part 50, §50.40(b), "Common Standards."
2. Regulatory Guide 1.33, "Quality Assurance Program Requirements."
3. Regulatory Guide 1.8, "Personnel Selection and Training."
4. NUREG-0737, "Clarifications of TMI Action Plan Requirements."