

NRC INSPECTION MANUAL

LHFB

PART 9900: TECHNICAL GUIDANCE

PROCAD.TG

OPERATIONS - PROCEDURAL ADHERENCE

A. PURPOSE

To provide the NRC position concerning the evaluation of licensees' use of, and adherence to, procedures for the performance of all activities affecting quality as covered under Criterion V and VI of Appendix B to 10 CFR Part 50, and defined as safety-related in Regulatory Guide 1.33.

B. DEFINITION

Procedures. Documents established by designated licensee personnel that provide a prescribed written and controlled method for plant personnel to operate and maintain reactor facilities in a safe, pre-determined, and consistent manner. The level of detail, clarity, format, and logical arrangement of steps within procedures should enable newly qualified individuals following a procedure to consistently achieve the desired result. Procedures, as defined here, apply to both text and flow-chart formatted guidance and work instructions.

C. BACKGROUND

As a result of the staff's experiences with the evaluation of licensees' activities during the operational phase of nuclear power plants, the NRC has revised its inspection guidance concerning licensees' use of procedures. Frequently, confusion develops regarding NRC inspections of licensee adherence to procedures. The term "verbatim compliance" is part of this confusion. The NRC position on the issue of procedural adherence requires an understanding of the types of scenarios in which procedures are used. Because there are many different scenarios that arise involving procedural adherence issues, some differences in application of procedural adherence requirements have arisen and the term "verbatim compliance" has crept into the regulatory vocabulary of some of the staff. This inspection guidance provides a discussion of the technical basis upon which inspectors should evaluate licensees' use of procedures.

D. DISCUSSION

The NRC expects licensees to adhere to procedures and to have established policies that effectively control procedural adherence and procedural change processes. The NRC expects that the combination of an individual's training, and the proper use of written procedures consistent with the licensee's procedural adherence policy, will be sufficient to successfully complete a task. If

procedural deficiencies are identified, it is expected that changes to the procedure will be effected before continuing with the procedure. Should an emergency situation arise, however, when time for proper safety response does not permit changing a deficient procedure, then deviation from the procedure in the interest of plant safety is considered appropriate.

This expectation is based on the requirements and guidance concerning the use of procedures for all activities affecting quality. These requirements and guidance are primarily found in Criterion V and VI of Appendix B to 10 CFR Part 50 (Appendix B); Regulatory Guide (RG) 1.33, Revision 2, 1978; "Quality Assurance Program Requirements (Operation);" and the American National Standards Institute (ANSI) N18.7-1976/ANS-3.2; "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."

Criterion V and VI of Appendix B to 10 CFR Part 50 state the requirements by which licensees develop, implement, maintain an control procedures:

Criterion V:

"Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with [emphasis added] these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Criterion VI

"Measures shall be established to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed. Changes to documents shall be reviewed and approved by the same organizations that performed the original review and approval unless the applicant designates another responsible organization."

Guidance concerning licensees' use of procedures during the operations phase of nuclear power plants, is contained in RG 1.33, which endorses, with exceptions, ANSI-N18.7-1976. Section 5.2.2, "Procedural Adherence," of ANSI-N18.7-1976 addresses licensees' use of and adherence to procedures. The ANSI standard provides guidance to identify the manner in which procedures are to be implemented, and provides several examples for accomplishing this. Inspectors should be aware that this guidance is not a regulatory requirement, unless incorporated in the facility license or technical specifications or an enforceable document, such as in an NRC-approved Quality Assurance plan or FSAR.

While ANSI-N18.7-1976 recommends that licensees provide guidance to identify the manner in which procedures are to be implemented, the

methods of disseminating such guidance vary widely across the industry. Licensees may have provided this guidance in any of the following types of documents: (1) Final Safety Analysis Report (FSAR) sections on plant procedures and quality assurance programs, (2) technical specification sections on administrative controls, (3) corporate policy statements or conduct of operations charters, (4) quality assurance manuals and department administrative manuals, or (5) individual procedures (e.g. emergency operating procedures).

The terminology and descriptions that are often used in these documents may introduce questions with regard to licensee philosophy on procedural adherence. Licensees commonly use phrases such as "in accordance with," "shall be followed," "shall be used," "shall adhere to," "should be referenced," and "utilized as necessary," which permit broad interpretation and individual judgement. Therefore, licensees have the responsibility of ensuring that (1) the phrases used to describe procedural adherence are not ambiguous, and (2) plant personnel have been adequately trained to understand the meaning and intent of such phrases. Plant personnel includes licensee and contractor workers responsible for safety-related activities and those activities affecting quality.

Inspectors should ensure that licensees adhere to procedures in accordance with their policies and guidance regarding procedural adherence and procedural changes which should be consistent with the requirements of Appendix B and their licensing commitments. Licensees should have considered the following important factors in establishing policies and guidelines for procedural usage.

1. Licensees should establish documented plant-specific procedural adherence and procedural change policies and guidance which are consistent with regulatory requirements and their licensing commitments. These policies and guidance should be documented in a consistent and unambiguous manner, and should be described in sufficient detail to ensure that individuals responsible for performing activities affecting quality understand these policies and conduct their activities in accordance with these policies.
2. Licensees should implement appropriate controls to ensure that plant personnel are trained, understand, and adhere to their policies regarding procedural adherence and procedural change processes.
3. Licensees' procedural change process and policies/guidance on procedural adherence need to be compatible to promote efficient use of resources to ensure that the change process will be utilized. Licensee personnel, who perform safety-related activities and those activities affecting quality should understand the situations that warrant temporary or permanent procedural changes, should know the methods for implementing these changes, and should conduct activities affecting quality consistent with these processes.
4. Licensees should provide procedures which reflect the complexity of the task and the knowledge level of the

individual(s) who are expected to perform the task such that personnel performing safety-related activities and those activities affecting quality will, under normal circumstances, consistently accomplish these activities without deviating from procedures. However, as permitted under 50.54(X) and 50.54(y), exceptional emergency conditions may arise when time for proper safety response does not permit changing a deficient procedure, and deviation from procedures in the interest of plant safety is considered appropriate. Licensees should ensure that those personnel responsible for activities affecting quality are trained to recognize such emergency conditions.

NRC inspectors should be familiar with the documents listed in Section F, "References," and the additional NRC and industry documents detailed in Section G, "Additional Sources of Procedural Usage Information," which provide guidance on, and descriptions of, quality assurance programs and procedural usage.

E. CONCLUSION

The NRC expects licensees to adhere to procedures and to have established policies that effectively control procedural adherence and procedural change processes. If procedural deficiencies are identified, it is expected that changes to the procedure will be effected before continuing with the procedure. Should an emergency situation arise, however, when time for proper safety response does not permit changing a deficient procedure, then deviation from the procedure in the interest of plant safety is considered appropriate. The concept of "verbatim compliance" is not consistent with the above approach and policies requiring "verbatim compliance" may not be practically achievable for all procedures since it implies that procedures are perfect. Consequently, the term "verbatim compliance" should not be used by NRC inspectors. There may be situations where a licensee has promulgated a procedural adherence policy which uses the words, "verbatim compliance." Inspectors should be aware of the difficulties associated with such a policy. Inspectors should review such a policy to be sure that it is consistent with the NRC Position described above.

Inspection of licensees' use of procedures should (1) continuously focus on licensee's performance and (2) ensure that licensees have processes for effectively controlling procedural adherence and procedural changes as outlined above. In those instances where performance fails to meet a regulatory requirement, the inspector should determine if the licensee's procedures were performed in accordance with the licensee's procedural adherence policies and guidance or if the procedures themselves were inadequate to ensure that regulatory requirements are consistently met. If a procedure was not performed in accordance with the licensee's procedural adherence policies and guidance or was inadequate, then regional management should frame a violation to indicate where the failure in performance occurred.

F. REFERENCES

1. U. S. Code of Federal Regulations, "Instructions, Procedures and Drawings," Criterion V and VI of Appendix B of Part 50 of Title 10.
2. U.S. Code of Federal Regulations, "Conditions of Licenses", Part 50.54(x) and 50.54(y) of Title 10.
3. Regulatory Guide 1.33, Revision 2, "Quality Assurance Program Requirements (Operation)," 1978.
4. ANSI-N18.7-1976/ANS-3.2, "Administrative Controls and Quality Assurance For the Operational Phase of Nuclear Power Plants," Sections 5.2 and 5.3.

G. ADDITIONAL SOURCES OF PROCEDURAL USAGE INFORMATION

1. ANSI/ANS-3.2-1982, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," Section 5.2.2.
2. ANSI/ANS-3.2-1988, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," Section 5.2.2.
3. ANSI 45.2-1971, "Quality Assurance Program Requirements for Nuclear Power Plants," Section 6.
4. ANSI/ASME 45.2-1977, "Quality Assurance Program Requirements for Nuclear Facilities," Section 6.
5. ANSI/ASME NQA-1-1983, "Quality Assurance Program Requirements for Nuclear Facilities," Section 5.
6. ANSI/ASME NQA-2-1983, "Quality Assurance Requirements for Nuclear Power Plants," Section 4.2.
7. Draft Regulatory Guide DG-1001, "Maintenance Programs for Nuclear Power Plants," Section 4.4, 1990.
8. Licensee Technical Specifications Section, "Administrative Controls."
9. NUREG/CR-1369, Revision 1, "Procedures Evaluation Checklist for Maintenance, Test and Calibration Procedures Used in Nuclear Power Plants," 1982.
10. SECY-90-337, "Procedural Adherence Requirements," October 3, 1990.
11. U.S. Code of Federal Regulations, "Completeness Accuracy of Information," Part 50.9 of Title 10.

12. U.S. Code of Federal Regulations, "Inaccurate and Incomplete Information," Criterion VI of Appendix C of Part 2 of Title 10.

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