



## **POLICY ISSUE** **(Information)**

December 20, 1984

SECY-84-476

For: The Commissioners

From: William J. Dircks  
Executive Director for Operations

Subject: STAFF PLANS CONCERNING IMPLEMENTATION OF THE COMMISSION'S  
DIRECTIVES IN THE AREA OF EQUIPMENT IMPORTANT TO SAFETY

Purpose: To inform the Commission of the steps the staff is taking  
to implement the Commission's directives in the area of  
equipment important to safety.

Background: In its Shoreham<sup>1</sup> decision the Commission stated:

"The material already in the record of this proceeding shows that the issue presented by Question 1<sup>2</sup> requires further consideration in a forum broad enough to encompass the far-reaching ramifications of any decision on this issue. As the Appeal Board found, the history of the use of the terms 'important to safety' and 'safety-related' is tortuous and somewhat inconsistent. A comprehensive analysis of this history will be more accurate if it has the benefit of the institutional memories of as many individuals as possible. The application of such an analysis could result in a decision having significant consequences for the NRC's regulatory program. This potential for significant decision warrants broad public participation. Accordingly, the Commission will initiate a rulemaking proceeding on this issue."

<sup>1</sup> In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1) CLI-84-9, 19 NRC 1323 (June 5, 1984).

<sup>2</sup> Question 1: Are the terms "important to safety" and "safety-related" to be deemed synonymous for the purpose of establishing an acceptable quality assurance program in accordance with GDC 1 of Appendix A and Appendix B to 10 CFR Part 50?

Contact: G. Ted Ankrum, IE  
492-4774  
S. M. Goldberg, IE  
492-4968

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CF SECY  
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XA

Discussion:

NRC has met with interested parties, including industry, regarding the important-to-safety subject and various approaches to resolve this issue. Based on these discussions, the staff concluded that the involved industry groups varied in their positions on how to best resolve the matter short of rulemaking. Additional discussions are planned next month between the staff and interested industry groups to inform the staff of industry's near-term plans.

Pending the results of those further discussions, the staff is planning to go forward on a Notice of Proposed Rulemaking to the Commission for its decision in early 1985. The Notice of Proposed Rulemaking is expected to propose specific guidance for equipment important to safety but not safety-related, similar to that published for public comment for non-safety-related ATWS equipment (See Enclosure 1). The delay in sending the proposed rule to the Commission is to allow the staff to have further discussions with industry in January and to consider the public comments received on QA guidance for non-safety-related ATWS equipment. The public comment period for ATWS QA guidance closed on December 10, 1984.

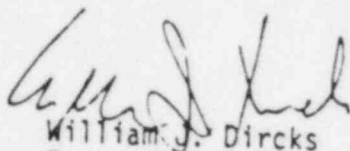
Rulemaking would be intended to resolve two issues. First, significant differences exist between the industry and the staff concerning the meaning of a significant body of NRC regulations, regulatory guidance, and related correspondence in which the term "important to safety" is used. The absence of a common understanding cannot be allowed to continue if the NRC is to have a viable regulatory process and communicate effectively. Enclosure 2 is a description of the different points of view and history of this issue. Second, overall plant safety should be improved by increasing the reliability of equipment important to safety but not safety-related. This equipment has been observed as a frequent cause of problems such as plant trips and consequent challenges to safety systems. At the November 20, 1984 Commission meeting to review the AEOD program, the AEOD Director stated:

"The dominant cause of the plant scrams seems to be coming from balance-of-plant (or non-safety-related) systems, primarily the feedwater system... Fifty percent of these scrams were above eighty percent power."

In publishing specific guidance for equipment important to safety but not safety-related, the staff's intent is to provide a framework for improved plant operation by the following actions: (1) we would issue formal guidance in the form of a rule for this class of equipment, and (2) we would inspect by direct observation, to ensure that the guidance is being properly implemented. This is clearly not an urgent safety issue, as evidenced by our case-by-case corrective action over the past fifteen years. However, the staff is convinced that plant operation and safety will be improved by adopting formal guidance for this entire class of equipment. Due to the lesser safety significance of this equipment, the guidance is expected to be less stringent than the requirements of 10 CFR Part 50 Appendix B for safety-related structures, systems, and components. The proposed QA guidance for non-safety-related ATWS equipment is indicative of the less stringent requirements currently envisioned.

The Notice of Proposed Rulemaking is expected to contain guidance similar to that developed for the ATWS rule (after considering public comments) and also an enumeration of the basic issues intended to be addressed by the proposed rulemaking. The staff intends to hold a series of regional workshops on this topic shortly after publication of the proposed rule to further refine the staff's approach. Following an enhanced public comment process, a final rule will be submitted to the Commission for its decision toward the end of FY85.

I will keep the Commission informed of our progress to resolve this issue.



William J. Dircks  
Executive Director for Operations

Enclosures:

1. Federal Register Notice QA Guidance for Non-Safety-Related ATWS Equipment
2. Description of Different Points of View and History of the Important-to-Safety Issue

NUCLEAR REGULATORY COMMISSION  
Issuance for Comment of Quality Assurance (QA) Guidance  
Related To Anticipated Transients Without Scram (ATWS)  
Equipment That Is Not Safety-Related

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for Comment.

SUMMARY: The NRC staff is issuing a proposed generic letter to all interested parties, including licensees of operating reactors, applicants for operating licenses, and holders of construction permits. This generic letter provides quality assurance (QA) guidance for non-safety-related equipment that is associated with 10 CFR 50.62, "Requirements for Reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants." The final QA guidance is expected to be issued in February 1985 and is considered the reference date that initiates the schedule in 10 CFR 50.62 (d).

DATES: The comment period expires December 10, 1984. Comments received after this date will be considered if it is practical to do so.

ADDRESSES: Send comments to: Mr. Stephen M. Goldberg; Quality Assurance Branch; Division of Quality Assurance, Safeguards, and Inspection Programs; Office of Inspection and Enforcement; U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

FOR FURTHER INFORMATION CONTACT: Stephen M. Goldberg; Quality Assurance Branch; Division of Quality Assurance, Safeguards, and Inspection Programs; Office of Inspection and Enforcement; U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Telephone: 301-492-4968.

SUPPLEMENTARY INFORMATION: The following is the body of a proposed generic letter and an enclosure to the letter which is a table summarizing the QA guidance for non-safety-related ATWS equipment. This letter is to be addressed to all licensees of operating reactors, applicants for operating licenses, and holders of construction permits. This letter describes how this guidance was developed, its relationship to Appendix B to 10 CFR Part 50, and its use for meeting NRC QA requirements for non-safety-related ATWS equipment.

#### LETTER

On June 1, 1984, the Commission approved publication of a final rule, 10 CFR 50.62 regarding the reduction of risk from anticipated transients without scram (ATWS) events for light-water cooled nuclear power plants (49 FR 26036). At the same time, the Commission directed the staff to complete and issue in the form of a generic letter explicit quality assurance (QA) guidance for non-safety-related equipment encompassed by the ATWS rule. Section 50.62(d) of the ATWS rule requires that each licensee develop and submit (to the Director of the Office of Nuclear Reactor Regulation) a proposed schedule for meeting the requirements of the rule within 180 days after issuance of the QA guidance.

To develop QA guidance for ATWS equipment that is not safety related, the NRC staff considered it necessary to survey QA practices applied to non-safety-related equipment at some operating nuclear power plants. During these plant visits, the NRC staff generally found that utility procedures were similarly



applied for safety-related and non-safety-related equipment or activities (e.g., design modifications and procurement procedures). At some point in these utility procedures, QA practices for safety-related equipment or activities diverged from the practices employed for non-safety-related equipment or activities. As an example, design modifications to safety-related equipment required QA organizational involvement and design verification; design modifications to non-safety-related equipment required no design verification other than normal supervisory review and no QA organizational involvement. On the basis of these plant visits, the NRC staff concluded that, as a general matter, the quality practices now applied to non-safety-related equipment would be adequate for non-safety-related equipment encompassed by the ATWS rule.

Licensees, applicants, and the NRC staff have the desire to minimize the proliferation of QA programs as opposed to the establishment of new and separate QA programs for non-safety-related equipment.

The practices that were observed during the plant visits were either to apply the 10 CFR Part 50, Appendix B program to non-safety-related equipment or to apply QA controls consistent with selected portions of their Appendix B program, although the utility procedures and practices did not specifically reference such controls as Appendix B requirements.

Because of familiarity of the staff and industry with Appendix B requirements and because of demonstrated industry preference, the staff has chosen to develop explicit guidance for non-safety-related ATWS equipment by framing it in terms of Appendix B criteria. Accordingly, QA controls for non-safety-related

ATWS equipment which meet Appendix B criteria except for those portions described below would fulfill NRC requirements:

- ° The QA organization is not required to participate in developing and implementing QA practices for this equipment, provided that normal supervisory controls exist to verify that the QA practices are being applied. Audits are not required, provided that line management periodically reviews the adequacy of the QA practices as one of its internal control functions.
- ° A new and separate QA program is not required provided that the licensees or applicants are committed to establish QA controls for this equipment by utility policy statements, by procedures, instructions, or directives, or by other suitable means. In addition, new or separate programs or measures are not required in the following areas:
  - Inspection, provided that the line organization is responsible for determining inspection requirements and for assuring that sufficient inspections are performed.
  - Test control, provided that the line organization is responsible for determining test requirements and for assuring that sufficient testing is performed.
  - Nonconformances and corrective action, provided that the line organization is responsible for controlling nonconformances, takes prompt action to correct conditions adverse to quality, and, as appropriate, implements measures to preclude repetition.

- ° Individuals outside the responsible design organization are not required to perform design verification (i.e., measures provided to verify or check the adequacy of the design by competent individuals or groups other than those who performed the original design). Instead, a design review by the designer's supervisor would be adequate.
- ° Contractors and subcontractors are not required to establish QA programs as a condition of the contract. The licensee's or applicant's QA controls for non-safety-related ATWS equipment become effective at the time the material or equipment is received at the plant. Contractors and subcontractors who perform services at the plant would be subject to the licensee's or applicant's QA controls for non-safety-related ATWS equipment.
- ° Documentation is not required to be available at the licensee's or applicant's plant to verify procedures were followed for the purposes of satisfying internal control requirements (i.e., documentation that verifies that receipt inspections were conducted need not be retained). However, documentation is required to verify that this equipment is designed, installed, tested, operated, and maintained so as to assure that the design specifications listed in the table published with the ATWS rule (49 FR 26036, pp. 26042-26043) have been met.

Enclosed with this letter is a summary of the QA guidance for non-safety-related ATWS equipment framed in the format of Appendix B to assist licensees and applicants.



In summary, the staff concludes that either the application of QA controls based on the guidance in this letter or the application of Appendix B requirements in their entirety is an acceptable method for satisfying NRC requirements. The staff anticipates that licensees and applicants will select an approach which does not result in the establishment of a new and separate QA program for such equipment.

Issuance of this QA guidance shall be considered the reference date initiating the schedule in 10 CFR 50.62(d).

The establishment of requirements under the ATWS rule was approved by the Office of Management and Budget under clearance number 3150-0111 which expires April 30, 1985 (49 FR 26036, p. 26044). Comments on burden and duplication may be directed to the Office of Management and Budget, Reports Management, Room 3208, New Executive Office Building, Washington, DC 20503.

SUMMARY OF THE QA GUIDANCE FOR NON-SAFETY-RELATED ATWS EQUIPMENT

<u>REQUIREMENT</u>	<u>GUIDANCE</u>
I. Organization	None (QA organization not involved)
II. Program	None (no new or separate program required)
III. Design Control	Establish measures <sup>1/</sup> to assure design specifications are included or correctly translated into design documents. Safety evaluations and reviews by designer's supervisor are required.
IV. Procurement Document Control	Establish measures to assure specifications and QA requirements are included in procurement documentation.

<sup>1/</sup> Except for design control, where the utility is responsible for ensuring that design control measures are applied at contractor or subcontractor organizations, the term "establish measures" applies to activities within the licensee's or applicant's organization, only. Also, the term "measures" is used synonymously with the term "controls" that appears in the letter itself.

REQUIREMENT

GUIDANCE

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|-------|--|---|
| V.    | Instructions, Procedures<br>and Drawings         | Establish measures for documenting the<br>controls applied to activities that affect<br>quality.  |
| VI.   | Document Control                                 | Establish measures to control issuance and<br>changes to documents.   |
| VII.  | Control of Purchased<br>Items and Services       | Establish measures at plant to assure that<br>all purchases conform to procurement<br>documents. Stores or warehouse personnel<br>or engineers may perform this verification.         |
| VIII. | Identification and Control<br>of Purchased Items | Establish measures to identify and control<br>purchased items (i.e., traceability from<br>receipt at the plant).  |
| IX.   | Control of Special<br>Processes                  | Establish measures to control special<br>processes on the basis of codes, standards,<br>and other requirements.   |
| X.    | Inspection                                       | Establish measures to inspect activities<br>affecting quality. Verify conformance to<br>documentation. Accomplish inspection by<br>trained personnel who did not perform the<br>work. |

REQUIREMENT

GUIDANCE

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|-------|---|---|
| XI.   | Test Control                            | Establish measures to test non-safety-related ATWS equipment prior to installation and operation and periodically. Document and evaluate results.                               |
| XII.  | Control of Measuring and Test Equipment | Establish measures to control, calibrate, and adjust measuring and test equipment at specific intervals.  |
| XIII. | Handling, Storage, and Shipping         | Establish measures to control handling, storage, shipping, cleaning, and preservation of purchases in accordance with utility documentation and manufacturer's recommendations. |
| XIV.  | Inspection, Test, and Operating Status  | Establish measures to indicate status of inspection, test and operability of installed non-safety-related ATWS equipment.   |
| XV.   | Nonconformances                         | Establish measures to identify nonconformances.   |
| XVI.  | Corrective Action System                | Establish measures for prompt correction of conditions which are adverse to quality (i.e., nonconformances). Establish measures, if appropriate, to preclude repetition.        |

REQUIREMENT

GUIDANCE

XVII. Records

Establish measures to maintain and control records which furnish evidence that system specifications described in the table of the ATWS rule have been met.

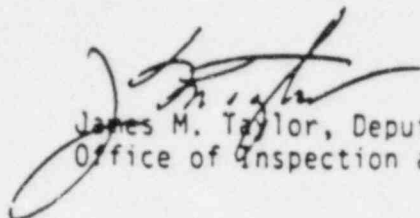
XVIII. Audits

None (audits not required if line management reviews adequacy of QA controls).



Dated at Bethesda, Maryland this 31st day of October 1984.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James M. Taylor, Deputy Director  
Office of Inspection and Enforcement

DESCRIPTION OF DIFFERENT POINTS OF VIEW AND HISTORY OF THE  
IMPORTANT-TO-SAFETY ISSUE

Different Points of View

The Commission has had separate meetings on this subject with the NRC staff on May 11, 1984, and representatives of the nuclear industry<sup>1</sup> on July 31, 1984. The staff position, as presented at the May 11 meeting, has been that (1) the term "important to safety" encompasses the broad scope of equipment defined by Appendix A to 10 CFR 50,<sup>2</sup> and that (2) the term "safety-related" applies to a narrower subset of this equipment as defined in Appendix A to 10 CFR 100 (III)(c) and in 10 CFR 50.49(b)(1)<sup>3</sup>. Although GDC-1 of Appendix A requires that a QA program be developed for the broad scope of equipment "important to safety," no specific guidance regarding the characteristics of such a program has been provided. On the other hand, specific QA program requirements for the subset of safety-related equipment are established by Appendix B to 10 CFR 50. The industry position, as presented at the July 31 meeting, is that (1) the two terms are synonymous and limited to the set of equipment already defined to be safety-related by the staff; (2) the QA requirements for this equipment have been specified either in Appendix B or, for a few special types of equipment (e.g., fire protection, radwaste, ATWS, and security), described in adopted regulatory guidance; (3) NRC has existing regulatory authority to take appropriate action if a safety concern involving equipment which is not safety-related is apparent; and (4) without further rulemaking, there is no regulatory basis for requiring licensees to have QA controls for any type of equipment other than the narrow set called "safety-related." The industry

<sup>1</sup> The industry representatives were M. Edelman, representing the Atomic Industrial Forum (AIF); W. Council, representing the Utility Safety Classification Group (USCG); and R. McDonald, representing the Nuclear Utility Management and Human Resources Committee (NUMARC).

<sup>2</sup> Equipment (i.e., systems, structures, and components) which provides reasonable assurance that the facility can be operated without undue risk to the health and safety of the public (10 CFR 50, Appendix A).

<sup>3</sup> "This equipment is that relied upon to remain functional during and following design basis events to ensure:

- (1) the integrity of the reactor coolant pressure boundary;
- (2) the capability to shut down the reactor and maintain it in a safe shutdown condition; and
- (3) the capability to prevent or mitigate the consequences of accidents that could result in potential off-site exposures comparable to the 10 CFR Part 100 guidelines."

to the Commission a decision on the correct use of terminology and the appropriate QA requirements.

° Generic Letter 84-01

In October 1983, NRR and ELD discussed with the Committee to Review Generic Requirements (CRGR) various staff approaches to inform utilities about the staff's current definition and interpretation of the terms "important to safety" and "safety-related." From that meeting and resultant EDO decision, NRR issued a generic letter (GL 84-01) on January 5, 1984, to all power reactor permittees and licensees setting forth the staff's position on this issue (see Attachment 2). This letter described the staff's position concerning requirements for the two classes of equipment. The letter stated that the staff viewed normal industry practice as generally acceptable for equipment considered important to safety but not covered by the Appendix B QA program.

On April 6, 1984, IE issued a Federal Register Notice (49 FR 13775) requesting public and industry views on whether further guidance is needed on this issue. Comments received were along the lines of the position presented by industry representatives to the Commission in the July 31, 1984 meeting. NRC held a public meeting on April 30, 1984, with interested parties, including industry, to discuss the technical issues involved.

° Shoreham Case

On June 5, 1984, the Commission stated they will initiate a rulemaking proceeding regarding the important to safety issue which had been certified to the Commission (on April 23, 1984) by the Atomic Safety and Licensing Board In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1). CLI-84-9, 19 NRC 1323 (June 5, 1984). In addition, the Commission stated:

"The Commission understands current precedent to hold that the term 'important to safety' applies to a larger class of equipment than the term 'safety-related.' However, this does not mean that there is a pre-defined class of equipment at every plant whose functions have been determined by rule to be important to safety although the equipment is not safety related. Rather, whether any piece of equipment has a function important to safety is to be determined on the basis of a particularized showing of clearly identified safety concerns for the specific equipment, and the requirements of General Design Criterion 1 (GDC-1) must be tailored to the identified safety concerns."

° QA Guidance for Non-Safety-Related ATWS Equipment

In conjunction with the approval for publication of the final ATWS rule on June 1, 1984, the Commission directed the staff to issue QA guidance in the form of a generic letter for non-safety-related equipment that is associated with 10 CFR 50.62, "Requirements for Reduction of Risk from Anticipated Transients without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants."

The staff had discussions with interested industry groups, met with the CRGR, and conducted visits to a limited number of plants to develop its approach on this subject. On November 6, 1984, the staff issued a proposed generic letter for comment in the Federal Register (49 FR 44337). Comments were due from all parties on this guidance by December 10, 1984.

Attachments:

1. Denton Memorandum to Staff Concerning Safety Classification
2. Generic Letter 84-01



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

January 5, 1984

TO ALL HOLDERS OF OPERATING LICENSES, APPLICANTS FOR OPERATING LICENSES  
AND HOLDERS OF CONSTRUCTION PERMITS FOR POWER REACTORS

Gentlemen:

Subject: NRC Use of the Terms, "Important to Safety" and "Safety Related"  
(Generic Letter 84-01)

As you may know, there has been concern expressed recently by the Utility Classification Group over NRC use of the terms "important to safety" and "safety-related." The concern appears to be principally derived from recent licensing cases in which the meaning of the terms in regard to NRC quality assurance requirements has been at issue, and from a memorandum from the Director, Office of Nuclear Reactor Regulation, to NRR personnel dated November 20, 1981.

Enclosed for your information are two letters to the NRC from this Group, and the NRC response dated December 19, 1983. In particular, you should note that the NRC reply makes it very clear that NRC regulatory jurisdiction involving a safety matter is not controlled by the use of terms such as "safety-related" and "important to safety," and our conclusion that pursuant to our regulations, nuclear power plant permittees or licensees are responsible for developing and implementing quality assurance programs for plant design and construction or for plant operation which meet the more general requirements of General Design Criterion 1 for plant equipment "important to safety," and the more prescriptive requirements of Appendix B to 10 CFR Part 50 for "safety-related" plant equipment.

While previous staff licensing reviews were not specifically directed towards determining whether, in fact, permittees or licensees have developed quality assurance programs which adequately address all structures, systems and components important to safety, this was not because of any concern over the lack of regulatory requirements for this class of equipment. Rather, our practice has been based upon the staff view that normal industry practice is generally acceptable for most equipment not covered by Appendix B within this class. Nevertheless, in specific situations in the past where we have found that quality assurance requirements beyond normal industry practice were needed for equipment "important to safety," we have not hesitated in imposing additional requirements commensurate with the importance to safety of the equipment involved. We intend to continue that practice.

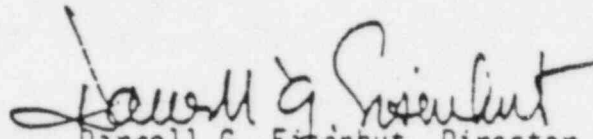
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LFP



-2-

The NRC staff is interested in your comments and views on whether further guidance is needed related to this issue. If you are interested in participating in a meeting with NRC to discuss this subject, please contact Mr. James M. Taylor, Deputy Director, Office of Inspection and Enforcement.

Sincerely,

  
Darrell G. Eisenhower, Director  
Division of Licensing

Enclosure:

1. Two Letters from Utility Safety Classification Group
2. NRC Response dated December 19, 1983

November 20, 1981

MEMORANDUM FOR: All NRR Personnel

FROM: Harold R. Denton, Director  
Office of Nuclear Reactor RegulationSUBJECT: STANDARD DEFINITIONS FOR COMMONLY-USED SAFETY CLASSIFICATION  
TERMS

Litigation of one of the principal issues in the TMI-1 Restart Hearing brought to light the fact that there is not complete consistency among all elements of the NRR staff in the application of safety classification terms used frequently in the conduct of NRR's safety review and licensing activities. More specifically, it appears that terms "important to safety," "safety grade," and "safety-related" have been used at times interchangeably, or in ways not completely consistent with the definitions and usage of such terms in the regulations, and which do not fully reflect the intent of the regulations or current licensing practice.

Efforts have been underway for some months now to develop guidance for the consistent usage of these terms. These efforts have included: (a) review of a large number of Reg Guides and SRP's, in conjunction with parts of the regulations upon which they are based, for consistency in the application of safety classification terminology, (2) extensive discussions among cognizant NRR, RES (Stds. Devel.) and ELD representatives regarding proper interpretation and application of such terms, including consideration of alternative "standard" definitions and (3) consultation with the cognizant ACRS Subcommittee regarding these matters, and consideration by the full ACRS as well.

As a result of these efforts, I am endorsing and prescribing for use by all NRR personnel the standard definitions set forth in the enclosure to this letter. It should be noted that in connection with long-term efforts to develop means for ranking reactor plant systems with respect to degree of importance to safety, and in connection with related efforts to develop a graded Q.A. approach in reactor licensing, the general question of safety classifications and safety classification terminologies will be reexamined; and this could result in changes to the definitions set forth in the enclosure or perhaps in development of a completely new scheme in this regard. For the time being, however, the definitions in the enclosure should be considered "standard" and should be applied consistently by all NRR personnel in all aspects of our safety review and licensing activities and should be appropriately reflected in our regulatory guidance documents.

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PDR

It is expected that minor editorial revisions will have to be made to some existing Reg Guides and SRP's in order to make their wording consistent with these definitions. You should review the regulatory guidance documents within your purview in this regard and recommend the necessary changes; it is not expected that this will involve extensive revision efforts. I want to make clear that my interest here is only in establishing consistency in the language used by all cognizant groups within NRR in expressing our technical requirements. It is not my intention by this action to dictate new technical requirements, to modify existing technical requirements, or to broaden the existing scope of NRR licensing review.

Original Signed by  
 L. M. R. Denton

Harold R. Denton, Director  
 Office of Nuclear Reactor Regulation

Enclosure:  
 Definition of Terms

## Distribution:

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## DEFINITION OF TERMS

### Important to Safety

- Definition - From 10 CFR 50, Appendix A (General Design Criteria) - see first paragraph of "Introduction."

"Those structures, systems, and components that provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public."

- Encompasses the broad class of plant features, covered (not necessarily explicitly) in the General Design Criteria, that contribute in important way to safe operation and protection of the public in all phases and aspects of facility operation (i.e., normal operation and transient control as well as accident mitigation).
- Includes Safety-Grade (or Safety-Related) as a subset.

### Safety-Related

- Definition - From 10 CFR 100, Appendix A - see sections III.(c), VI.a.(1), and VI.b.(3).

Those structure, systems, or components designed to remain functional for the SSE (also termed 'safety features') necessary to assure required safety functions, i.e.:

- (1) the integrity of the reactor coolant pressure boundary;
  - (2) the capability to shut down the reactor and maintain it in a safe shutdown condition; or
  - (3) the capability to prevent or mitigate the consequences of accidents which could result in potential off-site exposures comparable to the guideline exposures of this part.
- Subset of "Important to Safety"
  - Regulatory Guide 1.29 provides an LWR-generic, function-oriented listing of "safety-related" structures, systems, and components needed to provide or perform required safety functions. Additional information (e.g., NSSS type, BOP design A-E, etc.) is needed to generate the complete listing of safety-related SSC's for any specific facility.

Note: The term "safety-related" also appears in 10 CFR 50, Appendix B (Q.A. Program Requirements); however, in that context it is framed in somewhat different language than its definition in 10 CFR 100, Appendix A. That difference in language between the two appendices has contributed to confusion and misunderstanding regarding the exact meaning of "safety-related" and its relationship to "important to safety" and "safety-grade." A revision to the language of Appendix B has been proposed to clarify this situation and remove any ambiguity in the meaning of these terms.

Safety-Grade

- Term not used explicitly in regulations but widely used/applied by staff and industry in safety review process.
- Equivalent to "Safety-Related," i.e., both terms apply to the same subset of the broad class "Important to Safety."



Safety-Grade

- Term not used explicitly in regulations but widely used/applied by staff and industry in safety review process.
- Equivalent to "Safety-Related," i.e., both terms apply to the same subset of the broad class "Important to Safety."