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 was 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.

IDHR-5
INFO-LTR.

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,

Original signed by
Darrell G. Eisenhut

Darrell G. Eisenhut, Director
Division of Licensing

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

DL	DD	ONRR	ONRR
MHungerbuhler:mcs	DGEisenhut	ECase	HRDenton
12/30/83	01/4/84	1/4/84	1/4/84

Also Vic Stello, Dick DeYoung and Bill Olmstead have concurred in draft.

1/4

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Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing

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

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FILE NO.

DIRECT DIAL NO. 804 788-

August 26, 1983

Mr. William J. Dircks
U.S. Nuclear Regulatory Commission
Maryland National Bank Building
7735 Old Georgetown Road
Bethesda, Maryland 20814

Dear Mr. Dircks:

The Utility Safety Classification Group, a group representing 30 electric utility owners of nuclear power plants,1/ seeks to bring to your attention an issue of major importance and increasing prominence, namely that of certain definitions used in systems classification. The regulatory terms "safety related" and "important to safety" and the non-regulatory term "safety grade" have been consistently used synonymously by the industry and the NRC over decades of plant design, construction, licensing and operation.

The Utility Group believes that various recent actions taken within the NRC Staff signal a sharp departure from the

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1/ Members of the Utility Group are listed in Attachment A to this letter. The Utility Group has retained the firm of KMC as its technical consultants and the law firm of Hunton & Williams as its legal consultants.

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long-standing meaning of the term "important to safety" to cover a much broader and undefined set of plant structures, systems and components than is covered by the term "safety related." Redefining these terms without proper review would likely have far-reaching, pervasive consequences for licensing and general regulation of nuclear plants. In particular, given the extensive use of the term "important to safety" in the Commission's regulations and Staff regulatory guides, NUREG documents and other licensing documents, as well as licensee submittals, the result of this sharp departure from the long-standing meaning of this term would be a largely unexamined and perhaps unintended expansion of the scope of the above documents. The Utility Group believes it is vital that the Commission be aware of this development so that steps can be taken to ensure that if any changes to regulatory requirements and guidance are made, they are made only in a manner consistent with legal requirements and after a thorough consideration of their consequences and ramifications. This process should include consideration by the Committee to Review Generic Requirements. Contrary to all this, the Utility Group understands that a generic letter will soon be sent by the Director of the Office of

Nuclear Reactor Regulation, requesting all licensees and applicants to describe their current treatment of structures, systems and components "important to safety." Such a letter incorrectly assumes that "important to safety" is different from "safety related."

Since the introduction of these terms in the NRC's regulations, nuclear plants have been designed and built by members of the nuclear industry, including the members of this Utility Group and their contractors, using the terms "safety related" and "important to safety" interchangeably.2/ The terms "safety related" and "important to safety" are used in the Commission's regulations.3/ Plants designed using this

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2/ A functional definition of these structures, systems and components "important to safety" or "safety related" is found in Part 100, Appendix A. They are those structures, systems and components relied upon, in the event of a safe shutdown earthquake, to fulfill the three basic "safety functions" of assuring (1) the integrity of the reactor coolant pressure boundary, (2) the capability to shut down the reactor and maintain safe shutdown and (3) the capability to prevent or mitigate the consequences of accidents which could result in offsite exposure comparable to Part 100 exposure guidelines. 10 CFR Part 100, Appendix A, ¶¶ I, III(c).

3/ To a lesser extent, the non-regulatory term "safety grade" is part of this issue. Safety grade is commonly regarded as being synonymous with "safety related" and "important to safety."

classification scheme were licensed by the NRC and, indeed, the NRC has recognized the equivalency of safety related and important to safety in many documents.4/

The issue addressed by this letter is similar to, but distinct from, that faced in the TMI-1 restart proceeding. There, the Union of Concerned Scientists, an intervenor, argued that certain components of TMI-1, previously classified as non-safety related, should be upgraded in their design criteria to "safety grade" status. The arguments in that case, highly fact-specific, were limited to the actual components at issue, were couched in terms of the non-regulatory term "safety grade," and applied only to design requirements (as contrasted with, e.g., QA requirements). Thus the decisions of the Licensing Board (LBP-81-59, 14 NRC 1211 (1981)) and the Appeal Board (ALAB-729, May 26, 1983) in TMI-1, are not susceptible, upon close reading, of broader application to the "safety related"/"important to safety" issue addressed by this letter.5/

4/ See Attachment B to this letter for examples of instances in which the NRC Staff has used these terms interchangeably.

5/ The Appeal Board in the TMI decision, while upholding the Staff's distinction between the terms "safety grade" and "important to safety," found the Staff's explanations "confusing and its attempt to define [those terms] somewhat belated." ALAB-729 at 137 (slip op.) n.288.

Unfortunately, these decisions are being improperly cited within the Commission, in contexts different from TMI-1, to imply an enforceable regulatory distinction between the terms "safety related" and "important to safety." Also, because the focus of the hearing in TMI-1 was so narrow, the record did not consider the broader implications of an expanded definition of "important to safety," nor did the record include facts establishing the long-standing industry and NRC practice of equating "important to safety" and "safety related."

The present issue was framed by a November 20, 1981 memorandum from NRR Director Harold Denton to all NRR personnel, following the close of the TMI-1 record. This memorandum, which has never been circulated for public comment, argues that the category "important to safety" is broader than "safety related" (or "safety grade"). Significantly, the memorandum also disclaims any intent to alter existing regulatory requirements. Despite the disclaimer, revision of the definition of "important to safety" to make it a broader category than "safety related" could have far-reaching, pervasive consequences for the licensing and general regulation of these plants. The Denton definition of "important to safety" is plainly inconsistent with at least a decade of industry and regulatory usage, in relianc on which dozens of plants have been designed, ordered, and bui t.

In addition, a number of recent events have taken place on the njustified assumption that the Denton distinction between " afety related" and "important to safety" is correct. They in lude, for example, the Staff's advocacy of the new, expanded eaning of the terms "safety related" and "important to safety" in various licensing proceedings; proposal and promulgation f rules purporting to distinguish between "safety related" nd "important to safety" equipment (e.g., ATWS, Environment l Qualification); commissioning of various contractor studies and issuance of various Staff documents premised on a distinction between the terms (e.g., EG&G Draft Report on graded QA). These are described in more detail in Attachment C to this le ter. At the same time, numerous Staff documents, some more re ent than the Denton memorandum, read fairly, presume the cor inued vitality of the view that the terms "safety related" nd "important to safety" are synonymous. Examples of these u ages are also described in Attachment B. Against this backgr nd, the apparently impending issuance of a generic NRR letter requesting utilities to account for treatment of items "important to safety" can only exacerbate existing confusion.

The impetus for the NRC Staff's efforts to expand the definition of "important to safety" seems to be a desire to expand some measure of design and quality regulation beyond the traditional scope of the NRC's regulatory authority. Whether such a desire is justified is not the direct focus of our letter. This Utility Group believes that a Staff redefinition of a basic regulatory term such as "important to safety" in an internal memorandum is not the appropriate means to accomplish this goal. It is also important to note that while variations exist in the details of practice, industry as a whole has generally applied design and quality standards to non-safety related structures, systems and components in a manner commensurate with the functions of such items in the overall operation of the plant. Moreover, we understand that numerous industry and professional groups, including AIF and ANS, are currently addressing the issue of quality assurance and quality standards for the non-safety related set of structures, systems and components. This Group and other groups plan to work closely with the NRC Staff to address the issue in a thoroughly and carefully considered manner.

In light of all this, the Utility Group urges you and the Office of Nuclear Reactor Regulation to delay indefinitely the issuance of the proposed NRR generic letter and to pursue instead a course of action on this issue which includes a consideration of the views and experience of industry on the question and the consequences of additional regulation before formally articulating any new definitions. In this way NRR can learn in more detail whether such definitions will, in fact, impose new requirements rather than merely clarify existing ones. Also, unforeseen and unintended consequences in these and other areas of the regulations can be avoided and an adequate cost-benefit assessment can be made if the views of affected parties are obtained and considered in an orderly fashion. Should the Staff decide nonetheless to issue the generic letter, we request that this letter on behalf of the Utility Group and the attachments be enclosed with the generic letter and with any Board notifications that may be issued on the subject.

The number of ongoing activities potentially affected by the definition of "important to safety" and the informal nature of the Denton Memorandum make it difficult to determine the appropriate procedural avenue to be pursued. The differences in approaches reflected in Attachments B and C to this letter may be the result of misinterpretation or misunderstanding that the Staff may be able to correct, as suggested above. On the other hand, if efforts to resolve this matter on the Staff level fail, the most constructive way of advancing and clarifying thought on this important subject may be a rulemaking proceeding. We would appreciate your prompt response so the Group can take the appropriate action.

Sincerely yours,

Anthony F. Earley, Jr.

T. S. Ellis, III
Donald P. Irwin
Anthony F. Earley, Jr.

Counsel for Utility Safety
Classification Group

cc: Mr. Harold R. Denton
Mr. Richard C. DeYoung
Mr. Robert B. Minogue
Mr. John G. Davis
Guy H. Cunningham, III, Esq.
Mr. Victor Stello, Jr.
Mr. Richard H. Vollmer
Mr. Darrell G. Eisenhut
Mr. Themis P. Speis
Mr. Roger J. Mattson
Mr. Hugh L. Thompson

ATTACHMENT A

MEMBERS OF THE
UTILITY SAFETY CLASSIFICATION GROUP

Arkansas Power & Light Co.
(representing also Mississippi Power & Light and Louisiana Power & Light)
Baltimore Gas & Electric Co.
Cincinnati Gas & Electric Co.
Commonwealth Edison Co.
Consumers Power Co.
Detroit Edison Co.
Florida Power Corp.
Florida Power & Light Co.
Illinois Power Co.
Long Island Lighting Co.
Niagara Mohawk Power Corp.
Northeast Utilities
Northern States Power
Pacific Gas & Electric Co.
Pennsylvania Power & Light Co.
Public Service Company of Indiana
Public Service Company of New Hampshire
(representing also the Yankee Atomic Electric Power Company)
Public Service Electric & Gas Co.
Rochester Gas & Electric Co.
Southern California Edison Co.
Sacramento Municipal Utility District
SNUPPS
(representing Union Electric Co., Kansas Gas & Electric Co., Kansas City Power & Light Co., and Kansas Electric Power Coop., Inc.)
Toledo Edison Co.
Wisconsin Electric Power Co.

ATTACHMENT B

Examples of the Equivalent Usage of
"Important to Safety" and "Safety Related"

I. Introduction

Since the inception of its use, the term "important to safety" has been consistently used synonymously with the term "safety related." The nuclear industry designed and built many nuclear power plants based on the equivalency of these terms, and the NRC, in turn, reviewed and licensed these plants on the same basis. This practice of equating "important to safety" and "safety related" has a sound basis in the NRC's regulations and has been reflected in numerous NRC guidance documents. The purpose of this attachment is to describe examples of NRC regulations, regulatory guides, NUREGs and other guidance documents in which the terms "important to safety" and "safety related" have been used in a way that evidences an intent to equate those terms. This list is not intended to be comprehensive; rather it includes only representative examples of the synonymous usage of these two regulatory terms.

II. NRC Regulations

A. Part 50, Appendix A

As proposed in 1967, Part 50's Appendix A did not use the term "important to safety." See 32 Fed. Reg. 10,213 (1967). In the version adopted in 1971, however, the term appeared in a number of places. The Federal Register notice adopting Appendix A discussed the substantive changes between the proposed and final rules. Significantly, this discussion of substantive changes did not mention the addition of the term "important to safety." This strongly suggests that the drafters did not consider that the change in terminology made any difference in scope or substance. See 36 Fed. Reg. 3256 (1971). A comparison of the proposed and final rule reveals that "important to safety" was merely substituted for a number of similar terms referring to features that are now known as "safety related."

The principal instance of this exchange of equivalent terms was the substitution of "structures, systems and components important to safety" for "engineered safety features." "Engineered safety features," as defined in Criterion 37 of the proposed Appendix A, are those provided to assure the safety provided by the core design, the reactor coolant pressure boundary and their protective systems. At a minimum, "engineered safety features" are designed to cope with all reactor coolant pressure boundary breaks up to and including the circumferential rupture of any pipe in that boundary, assuming unobstructed discharge from both its ends. See 32 Fed. Reg. 10,216-17 (1967). In other words, "engineered safety feature" in the proposed Appendix A is essentially similar to the current terminology of 10 CFR Part 100, particularly §§ 100.2(b) and 100.10(a) and (d), and it clearly falls within the ambit of "safety related" as that term is defined in Appendix A to Part 100.

Other examples exist of this substitution of "important to safety" for "engineered safety features." Proposed GDC 3, which now applies to structures, systems and components "important to safety," specifically referred in an earlier version to "critical" parts of the facility such as the containment and control room as "engineered safety features." See 32 Fed. Reg. 10,215. And GDC 4, which also now applies to structures, systems and components "important to safety," evolved from proposed versions of GDCs 40 and 42, which dealt with "engineered safety features." See 32 Fed. Reg. 10,217 (1967). By the same token, the current GDC 20 requires, in part, that protection systems be designed to sense accident conditions and to initiate the operation of systems and components "important to safety." This portion of GDC 20 evolved from an earlier, proposed version of GDC 15, which required protection systems to sense accident situations and to initiate the operation of necessary "engineered safety features." See 32 Fed. Reg. 10,216 (1967). Here again, there is an unmistakable equation of "important to safety" with "engineered safety features," a term that refers to safety related features.

The current GDC 44 requires a cooling water system to transfer heat from structures, systems and components "important to safety" to an ultimate heat sink. The cooling water system requirements in GDC 44 evolved from proposed GDCs 37, 38 and 39, which established the design basis of "engineered safety features" and stated the requirements for them. See 36 Fed. Reg. 10,216-17 (1967). Thus, the cooling water system referred to in GDC 44 is, in reality, the safety related engineered safety feature necessary to support other engineered safety features previously discussed in the proposed Appendix A.

Yet another example is provided by existing GDC 16 which requires a reactor containment and associated systems to assure that containment design conditions "important to safety" not be exceeded during postulated accident conditions. This GDC evolved from GDC 10 of the proposed Appendix A, which required the containment structure to sustain the initial effects of gross equipment failures, such as a large coolant boundary break, without loss of required integrity and, together with other "engineered safety features," to retain for as long as necessary the capability to protect the public. See 32 Fed. Reg. 10,215 (1967). In other words, the containment design conditions in the proposed GDC dealt with loss of coolant accidents. Structures, systems and components needed to deal with a LOCA are, of course, safety related.

A final example of the substitution of terms "important to safety" for "engineered safety features" involves the current version of GDC 17. It requires offsite and onsite electric power systems for structures, systems and components "important to safety." This GDC evolved from proposed GDCs 24 and 39, which required emergency power sources for protection systems and "engineered safety features." See 32 Fed. Reg. 10,216-17 (1967).

In addition to substituting items "important to safety" for "engineered safety features," the final version of Appendix A also used the term "important to safety" in place of other phrases that fall within the safety related set. GDCs 1 and 2 establish requirements for structures, systems and components important to safety. These criteria evolved from proposed GDCs 1 and 5, and 2, respectively. Proposed GDCs 1 and 2 applied to systems and components "essential to the prevention of accidents that could affect the public health and safety or to the mitigation of their consequences." This language is similar to that in 10 CFR Part 50, Appendix B, which means safety related. Proposed GDC 5 applied to records for "essential" components.

Thus, this regulatory history of 10 CFR Part 50, Appendix A, demonstrates that "important to safety" was inserted into Appendix A in lieu of a number of these terms to describe what are now known as "safety related" structures, systems and components, that the drafters believed there was no significant difference between "important to safety" and the terms used in the proposed version of the rule, and that the structures, systems and components referred to in Appendix A, regardless of what they are called, perform those functions now regarded as the safety related functions. Consequently, it is proper to conclude, and industry justifiably did conclude, that "important to safety" and "safety related" were equivalent terms.

B. Part 50, Appendix B

Both the NRC Staff and industry agree that Appendix B applies only to safety related structures, systems and components. This conclusion follows from the proposed and final versions of Appendix B which apply, by their terms, to activities affecting the "safety related" functions of structures, systems and components that prevent or mitigate the consequences of an accident.1/ 34 Fed. Reg. 6600 (1969); 35 Fed. Reg. 10,499 (1970). Thus, unless a structure, system or component has a safety related function, Appendix B does not apply to it. Appendix B also states that it applies to "structures, systems and components that prevent or mitigate

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1/ The prevention and mitigation of the consequences of postulated accidents, of course, are among the safety related functions of 10 CFR Part 100, Appendix A.

the consequences of postulated accidents that could cause undue risk to the health and safety of the public." 10 CFR Part 50, Appendix B, Introduction. This definition of the scope of Appendix B is essentially identical to the definition of "important to safety" found in the Introduction to Appendix A.

Other evidence of the equality of "safety related" and "important to safety" is also found in the proposed Appendix B rulemaking. The notice of proposed rulemaking stated that its quality assurance criteria would supplement GDC 1 of proposed Appendix A, previously noticed in the Federal Register in 1967. 34 Fed. Reg. 6600 (1969). It appears from this statement that Appendix B was meant to specify, in detail, what the general provisions of GDC 1 meant. This interpretation is supported by the fact that Appendix B was intended to "assist applicants (1) to comply with Section 50.34(a)(7) . . . ." Section 50.34(a)(7) states that Appendix B "sets forth the requirements for quality assurance programs" (emphasis added), and presumably "the requirements for quality assurance programs" include those of GDC 1. Thus, a reading of the regulatory history implies that Appendix B is a more detailed specification of the requirements contained in GDC 1, thereby equating "important to safety" with "safety related."

C. Part 100, Appendix A

The interchangeability of the terms "safety related" and "important to safety" is vividly illustrated by a review of the regulatory history of 10 CFR Part 100, Appendix A, which was proposed on November 25, 1971. 36 Fed. Reg. 22,601. The proposed rule included a number of passages that make absolutely clear (1) the category "important to safety" in 1971 meant "safety related" and (2) the terms are to be used interchangeably. For example, in defining the "Safe Shutdown Earthquake," the proposed rule stated:

> (c) The "Safe Shutdown Earthquake" is that earthquake which produces the vibratory ground motion for which structures, systems and components <u>important to safety</u> are designed to remain functional.
>
> These structures, systems and components are those necessary to assure:
>
> (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 offsite exposures comparable to the guideline exposures of 10 CFR Part 100.

36 Fed. Reg. 22,602 (1971) (emphasis added); <u>see also</u> <u>id.</u> at 22,604. This definition of the "safety related" functions is the same as that in the final (and current) version of the rule, which is recognized as providing the basic definition of the "safety related" functions. <u>See</u> 38 Fed. Reg. 31,281 (1973); 10 CFR Part 100, Appendix A, III(c).

Although the reference in paragraph (c) of the proposed rule to "structures, systems and components important to safety" was changed in the final version to refer to "certain structures, systems and components," there was no indication in the Commission's discussion of changes between the proposed and final rules to indicate that this substitution represented a change in scope. See 38 Fed. Reg. 31,279 (1973). In fact, the final rule added a reference in its purpose section to GDC 2, which applies to structures, systems and components "important to safety," thereby once again equating "safety related" and "important to safety."

In addition to defining "important to safety" in terms of the "safety related" definition, the proposed version of 10 CFR Part 100, Appendix A, used the terms "safety related" and "important to safety" interchangeably. Section VI(a) of the proposed rule reiterated the definition of structures, systems and components important to safety quoted above and went on to say "[i]n addition to seismic loads, . . . loads shall be taken into account in the design of these safety related structures, systems and components." 36 Fed. Reg. 22,604 (1971) (emphasis added). Several other references to "these safety related structures, systems and components" appeared within the paragraph dealing with equipment "important to safety." Id. Thus, the language in the proposed version of Part 100, Appendix A, made it abundantly clear that the terms "important to safety" and "safety related" were interchangeable and equivalent.

D. 10 CFR, Part 72

Part 72 of 10 CFR, adopted in November 1980, provides another example of the equation of "important to safety" and "safety related." This regulation states, in part, that applications for a license for an Independent Spent Fuel Storage Installation (ISFSI) shall describe the quality assurance program for the ISFSI: "The description of the quality assurance program shall identify structures, systems, and components important to safety and shall show how the criteria in Appendix B to Part 50 of this chapter will be applied to those safety related components, systems and structures in a manner consistent with their importance to safety." 10 CFR § 72.15(a)(14) (emphasis added). Although not directly related to nuclear power plants, the language of this NRC regulation uses "important to safety" and "safety related" interchangeably.

E. 10 CFR § 50.54

As recently as January 1983, the Commission's regulations have treated "important to safety" and "safety related" as equivalent. On January 10, 1983, the Commission amended 10 CFR § 50.54 providing that "the NRC Staff conducts extensive reviews during the licensing process to ensure that the applicant's QA program description satisfies 10 CFR Part 50, Appendix B, ... Once the NRC has accepted it, the QA program description becomes a principal inspection and enforcement tool in ensuring that the permit holder or licensee is in compliance with <u>all NRC quality assurance requirements</u> for protecting the public health and safety." 48 Fed. Reg. 1826 (1983) (emphasis added). In other words, implementation of a quality assurance program satisfying Appendix B constitutes compliance with <u>all</u> NRC quality assurance requirements, including, necessarily, GDC 1. Again, as noted above, Appendix B indisputably applies <u>only</u> to safety related structures, systems and components. Thus, this January 1983 regulation equates the scope of "safety related" in Appendix B with "important to safety" in GDC 1.

F. <u>10 CFR, Part 21</u>

Part 21 of 10 CFR uses the term important to safety in a very limited way but even that limited use demonstrates the equivalence of the terms safety related and important to safety. Section 21.3(a)(3) notes that a "'basic component' includes design, inspection, testing, or consulting services important to safety . . . ." In discussing this portion of the regulation, the supplementary information published in the Federal Register with the regulation states that Part 21 covers "responsible officers of firms and organizations supplying safety related components, including safety related design, testing, inspection and consulting services." 42 Fed. Reg. 28,892 (1977). Thus, this description evidently assumes that the use of the term important to safety in conjunction with design, testing, inspection and consulting services in § 21.3(a)(3) is meant to be synonymous with safety related.

This interpretation is confirmed in NUREG-0302, Revision 1, which provides information concerning various aspects of 10 CFR Part 21. In explaining references to important to safety in Part 21, the NUREG states in question and answer form:

> §21.3 states -- In all cases "basic component" includes design, inspection, testing, or consulting services "important to safety...". Clarify the meaning of this statement.
>
> Response:
>
> The broad scope of Section 206 activities of construction, operation, owning and supplying in themselves include activities such as design, consultation or inspection that are important to safety and are associated with component hardware . . . . An organization may accomplish all of these activities in-house or may choose to authorize others to do some of the safety-related activities; e.g., consultation, design, inspection or tests, for it. When such contractual arrangements are made for safety-related services the organization accomplishing the service is within the scope of Part 21.

NUREG-0302, Rev. 1, at 21.3(a)-5 (emphasis added). In addition, the NUREG expressly states that it applies only to safety related structures, systems and components:

> Does Part 21 apply to only "safety related" items?
>
> Response:
>
> Yes. Part 21 applies to any defects and noncompliance which could create a substantial safety hazard in activities that are within the regulatory authority of the Nuclear Regulatory Commission; therefore only those items which are "safety related" are within the scope of Part 21.

NUREG-0302, Rev. 1, at 21.3(a)-1 to -2. Thus, this NUREG confirms that in Part 21 "important to safety" and "safety related" are equivalent. Importantly, it also confirms that, in general, the NRC's regulatory authority is limited to safety related items. This is consistent with the long-standing industry and NRC interpretation that important to safety means safety related wherever the term appears in the NRC's regulations.

III. Regulatory Guides

A. Regulatory Guide 1.105

Regulatory Guide 1.105, "Instrument Setpoints" (Revision 1, November 1976), provides an unmistakably clear indication that the NRC Staff considered important to safety and safety related to be equivalent. In this regulatory guide, "systems important to safety" are defined as:

> those systems that are necessary 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 condition, or (3) the capability to prevent

> or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of 10 CFR Part 100, "Reactor Site Criteria."

Regulatory Guide 1.105, Rev. 1, at 1.105-2. Of course, this is precisely the definition of safety related structures, systems and components that appears in Appendix A to Part 100. Indeed, it is the definition of safety related that was endorsed by Mr. Denton in his November, 1981, memorandum on the subject of safety classification.

A proposed Revision 2 to Regulatory Guide 1.105, which was issued for comment in December, 1981, reiterates the NRC's intention to equate safety related and important to safety. This revision to the regulatory guide would endorse a document prepared by the Nuclear Power Plant Standards Committee of the Instrument Society of America (ISA) subject to several clarifications. One of the clarifications states:

> The term "safety-related instruments" is used throughout the ISA Standard. This term shall be understood to mean "instruments in systems important to safety." The term "systems important to safety" is defined in the Introduction of Appendix A to 10 CFR Part 50 as ". . . systems . . . that provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public."

Proposed Revision 2 to Regulatory Guide 1.105, at 2. Once again, the language of this regulatory guide expressly equates safety related with important to safety.

Regulatory Guide 1.118

Regulatory Guide 1.118, "Periodic Testing of Electric Power and Protection Systems" (Revision 2, June 1978), also explicitly equates important to safety and safety related. This regulatory guide adopts the definition of important to safety set out in Regulatory Guide 1.105, Revision 1, which, as noted above, makes it clear that the terms are equivalent.

Regulatory Guide 1.106

Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor-Operated Valves" (Revision 1, March 1977), describes a method acceptable to the NRC Staff for complying with certain regulatory requirements, including GDCs 1 and 4, with regard to the application of thermal overload devices for electric motors on motor operated valves. Both GDCs 1 and 4 apply to structures, system and components "important to safety." This regulatory guide, however, deals explicitly and exclusively with safety related motor operated valves to "ensure that the thermal overload protection devices will not needlessly prevent the motor from performing its safety related function." Thus, the clear implication of this regulatory guide is that components important to safety under GDCs 1 and 4 are those components (in this case motor operated valves) which have been classified as safety related.

Regulatory Guide 1.151

Regulatory Guide 1.151, "Instrument Sensing Lines" (July 1983), states in the introduction of the regulatory guide:

> Section 50.34, "Contents of Applications; Technical Information," of 10 CFR Part 50 . . . requires, in part, that design criteria be established for structures, systems and components important to safety that will provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public. Criterion 1 . . . requires, in part, that structures, systems, and components be erected (installed) to quality standards commensurate with the importance of the safety functions to be performed.

Regulatory Guide 1.151, at 1. After stating the pertinent regulatory requirements, the regulatory guide describes

> "a method acceptable to the NRC staff for complying with the Commission's regulations with regard to the design and installation of <u>safety-related</u> instrument sensing lines in nuclear power plants."

<u>Id.</u> (emphasis added). Here again, therefore, the NRC has explicitly equated the terms. Significantly, the regulatory guide also addresses only two classes of instrument sensing lines: "safety related" and "non-safety related." Consequently, the clear implication of this regulatory guide is that only two classifications of equipment are used in the design of nuclear power plants and that by meeting certain standards for safety related equipment, regulations which deal with equipment important to safety are also met. This latter

point implies the equivalence of important to safety and safety related equipment.

IV. NUREGs

A. Safety Evaluation Reports

Safety Evaluation Reports for plants that have applied for construction permits or operating licenses are published as NUREG documents. In these NUREGs, the Staff routinely includes a number of statements equating safety related and important to safety. Rather than focusing on specific plants and specific SERs, this section quotes from various SERs which are typical of SERs published by the Staff.

In discussing General Design Criterion 2 involving seismic design requirements, the Staff typically states in SERs that this GDC

> requires that nuclear power plant structures, systems and components important to safety be designed to withstand the effects of earthquakes without loss of capability to perform their safety function. These plant features are those necessary to assure (1) the integrity of the reactor coolant pressure boundary, (2) the capability to shutdown the reactor and maintain it in a safe shutdown condition, or (3) capability to prevent or mitigate the consequences of accidents which could result in the potential offsite exposures comparable to 10 CFR 100 guideline exposures.

Of course, the plant features defined above are those covered in Appendix A of Part 100, which are the safety related set of structures, systems and components. Moreover, if appropriate, the NRC Staff will conclude that a plant has been designed in compliance with Criterion 2 because classification of structures, systems and components conforms with guidance contained in Regulatory Guide 1.29, "Seismic Design Classification." This regulatory guide is recognized by industry and NRC as dealing with safety related structures, systems and components.

Another example from an SER deals with turbine missiles. One SER notes that "General Design Criterion 4 requires that a nuclear power plant be designed against internally and externally generated missiles to assure no loss of function or damage to safety-related equipment essential for a safe plant shutdown." General Design Criterion 4, of course, applies to "structures, systems, and components important to safety . . . ." Consequently, this NRC statement in a SER must be interpreted as explicit recognition of the equality of these two terms. Other SERs invite the same conclusion by discussing only the protection given to safety related structures when assessing whether the plant is protected from turbine missiles as required by GDC 4.

B. <u>NUREG-0302, Revision 1</u>

NUREG-0302, Revision 1, which deals with 10 CFR Part 21, is discussed in Section II.F above.

C. NUREG-0968

NUREG-0968 is the Safety Evaluation Report for the Clinch River Breeder Reactor (CRBR). In discussing seismic design requirements for CRBR, the Staff states:

> CRBR Principal Design Criterion (PDC) 2, in part, requires that structures, systems, and components important to safety be designed to withstand the effects of earthquakes without loss of capability to perform their safety functions. The earthquake for which these plant features will be designed is defined as the safe shutdown earthquake (SSE) in 10 CFR 100, Appendix A. The SSE is based upon an evaluation of the maximum earthquake potential and is that earthquake which produces the maximum vibratory ground motion for which structures, systems, and components important to safety are designed to remain functional.

NUREG-0968, at 3-34 (emphasis added). As already noted, the set of features designed to remain functional in the event of the safe shutdown earthquake are the safety related set of structures, systems and components, as defined in 10 CFR Part 100, Appendix A.

V. Other NRC Licensing Documents

A. I&E Information Notice 83-41 (June 22, 1983)

This I&E Information Notice is entitled "Actuation of Fire Suppression System Causing Inoperability of Safety-Related Equipment" (emphasis added). The stated purpose of this notice is to "alert licensees to some recent experiences in which actuation of fire suppression systems caused damage to or inoperability of systems important to safety" (emphasis added.). Thus, as recently as June of this year, official NRC documents have used the terms important to safety and safety related interchangeably.

VI. Miscellaneous Industry Documents

A. Institute of Electrical and Electronics Engineers (IEEE)

A number of industry groups have become aware of the inconsistent use of the term important to safety in some recent NRC documents, including the Denton memorandum. In response to these developments, the Nuclear Power Engineering Committee of IEEE wrote a letter to Mr. Robert B. Minogue, Director of the Office of Nuclear Regulatory Research, in May, 1982, making it clear that expansion of the scope of important to safety is contrary to the long-standing interpretation of NRC regulations by both nuclear industry and the NRC Staff. The letter states that

> [O]ver the years, the terminology of the General Design Criteria of Appendix A of 10 CFR Part 50 has been understood through common usage to equate systems important to safety to safety related or safety systems. Repeated references within the General Design Criteria to preservation of the safety function being performed by "structures, systems, and components important to safety" enforces this equivalence of terms.

Letter from R.E. Allen to Robert B. Minogue, dated May 10, 1982 (attached), at 2. This letter also indicated that the Nuclear Power Engineering Committee of IEEE opposed the expansion of the term important to safety.

B. American National Standards Institute

The Nuclear Standards Board (of the American National Standards Institute) Ad Hoc Committee on "Important to Safety" has made a recommendation to the full Nuclear Standards Board of ANSI which is pertinent to the definition of important to safety. The Ad Hoc Committee's recommendation follows:

> The current practice utilizing two major classifications, safety related and nonsafety related, for design, construction, testing and operation of nuclear power plants is acceptable and appropriate. This has occurred with a general understanding and usage that the terms "Important to Safety" and "Safety Related" are equivalent in meaning. The current practice has recognized that within the nonsafety related set, there are varying degrees of importance to safe and reliable operation. For many or most items of this nature, standards have been promulgated to guide design, construction, testing and operation.
>
> Even so, the NRC may determine there is a need, for licensing purposes, to identify a category of items, although nonsafety related, [that] are of more importance to the safe and reliable operation of the plant than other nonsafety related items. If so, the term "Important to Safety" should not be used to designate this set of items because of the past history of equivalence to the term "Safety Related". To apply the term, "Important to Safety" across the body of regulations to a new set of items

> would cause the term to become unclear as to the meaning of all current regulation and licensing commitments that stem therefrom.
>
> If this set of items is defined, it should be on a functional basis (e.g., ANS-51.1 and ANS-52.1). Requirements in existing standards for such functions, that are unique to specific functions, should be used.

Letter from Walter H. D'Ardenne to George L. Wessman, dated March 30, 1983 (attached) (emphasis added). This recommendation gives yet another unmistakable indication that the nuclear industry has equated the terms important to safety and safety related.

AMERICAN NUCLEAR SOCIETY
STANDARDS COMMITTEE

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March 30, 1983

George L. Wessman
Chairman ANSI Nuclear Standards Board
Torrey Pines Technology
P. O. Box 81608
San Diego, CA 92138

Dear George:

The Nuclear Standards Board Ad hoc Committee on "Important to Safety" met on Tuesday 3/29/83 at ANSI Headquarters in New York City. The objective of the meeting was to recommend to NSB an approach on "Important to Safety" that all standards writing organizations could follow. That recommended approach is attached and represents unanimous agreement of those attending the Ad hoc Committee Meeting. Also attached is the list of attendees at the meeting.

Sincerely,

Walt

Walter H. D'Ardenne, Chairman
Ad hoc Committee on Important to Safety

WHD:pab:cal/J03304

Attachment

cc: G. F. Dawe, Jr.
D. A. Campbell
E. F. Dowling
J. Ling
J. Millman
B. M. Rice
R. E. Allen
J. F. Cooper
R. A. Szalay
C. T. Zegers

AD HOC COMMITTEE ON IMPORTANT TO SAFETY RECOMMENDATION

The current practice utilizing two major classifications, safety related and nonsafety related, for design, construction, testing and operation of nuclear power plants is acceptable and appropriate. This has occurred with a general understanding and usage that the terms "Important to Safety" and "Safety Related" are equivalent in meaning. The current practice has recognized that within the nonsafety related set, there are varying degrees of importance to safe and reliable operation. For many or most items of this nature, standards have been promulgated to guide design, construction, testing and operation.

Even so, the NRC may determine there is a need, for licensing purposes, to identify a category of items, although nonsafety related, are of more importance to the safe and reliable operation of the plant than other nonsafety related items. If so, the term "Important to Safety" should not be used to designate this set of items because of the past history of equivalence to the term "Safety Related". To apply the term, "Important to Safety" across the body of regulations to a new set of items would cause the term to become unclear as to the meaning of all current regulation and licensing commitments that stem therefrom.

If this set of items is defined, it should be on a functional basis (e.g., ANS-51.1 and ANS-52.1). Requirements in existing standards for such functions, that are unique to specific functions, should be used.

WHO:pab:cal/J03305-1

ATTENDANCE LIST

NAME	ORGANIZATION
Walter H. D'Ardenne	ANS
George F. Dawe, Jr.	Stone & Webster Engineering Corp.
Donald A. Campbell	ANS
Edward F. Dowling	IEEE
June Ling	ASME
John Nillman	ASME
Bill M. Rice	IEEE
George L. Wessman	ANSI

WHO:pab/J03305-2
3/30/83

May 10, 1982
82-C-015

Mr. Robert B. Minogue, Director
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Minogue:

Subject: Use of the Term "Important to Safety"

References:
1) Proposed Revision 1 to Regulatory Guide 1.89, Environmental Qualification of Electric Equipment for Nuclear Power Plants, February, 1982.

2) Proposed Revision 2 to Regulatory Guide 1.105, Instrument Setpoints, December, 1981.

3) Draft Regulatory Guide (Task IC 126-5), Instrument Sensing Lines, March, 1982.

4) Memorandum from Harold R. Denton to All NRR Personnel, Standard Definitions for Commonly-Used Safety Classification Terms, November 20, 1981.

5) 10CFR50, Proposed Rule (47FR2879, 1/20/82) Environmental Qualification of Electric Equipment for Nuclear Power Plants.

A number of recent NRC documents have used the term "important to safety" in describing the scope of systems and equipment to which the document applies. Notable examples are the proposed Revision 1 of Regulatory Guide 1.89 (Reference 1), the proposed Revision 2 of Regulatory Guide 1.105 (Reference 2), and the draft Regulatory Guide on Instrument Sensing Lines (Task IC 126-5) (Reference 3).

Reference is made to 10CFR Part 50 as the source of the terminology. Over the years, the terminology of the General Design Criteria of Appendix A of 10CFR Part 50 has been understood through common usage to equate systems important to safety to safety-related or safety systems. The repeated references within the General Design Criteria to preservation of the safety function being performed by "structures, systems, and components important to safety" reinforces this equivalence of terms.

The current NRC intention in the use of the term "important to safety" appears to be to broaden the scope of equipment addressed to include more than safety-related or safety systems. In an internal NRC memorandum (Reference 4) Harold Denton defined "safety-related" as a subset of "important to safety". Broadening the usage of the term "important to safety" to encompass an undefined set of systems, in addition to safety-related or safety systems, increases confusion in the dialogue on current NRC requirements/guidance and creates an unworkable situation. A clear understanding of the principles for determining what is included and what is not included in "systems important to safety" is needed. For example, Regulatory Guide 1.105, Instrument Setpoints, recommends the substitution of "systems important to safety" for "nuclear-safety-related". This substitution of terms adds an unknown number of systems to the set of systems required to meet the draft ISA standard.

The IEEE, through a Nuclear Power Engineering Committee (NPEC) working group on standards project P827, is attempting to develop a methodology for assigning design criteria based on a system's level of importance to safety. Although considerable progress has been made on the subject in the last year and a half, the methodology has not been developed to the point of being easily understood and usable. Unfortunately, the complexity of the subject prevents the methodology, as currently developed, from being uniformly interpreted and applied by individual users. Work is continuing on overcoming this deficiency, so that application may be consistent from user to user and enforcement may be uniform from application to application. The difficulty in producing this methodology underscores the need for careful choice of terminology so that a basis is established to promote common understanding and not to introduce additional confusion.

Until the P827 methodology has passed through the IEEE review (consensus) process and the term "systems important to safety" has a commonly understood meaning, it is recommended that the NRC refrain from using this term without also including a clear definition of which systems are addressed. This is exactly what was done in the development of the rule on equipment qualificatior (Reference 5). Alternatively, commonly understood terms, such as safety-relat and terms defined in voluntary standards, such as safety systems, should be employed. If it appears necessary to address systems beyond the scope of thes terms, then the additional systems should be clearly identified.

It is recommended that the term "nuclear-safety-related" be retained in the proposed Revision 2 to Regulatory Guide 1.105 and the proposed Regulatory Guide on Instrument Sensing Lines (Task IC 126-5) and that the term "important to safety" not be used in these documents.

c. Preliminary versions of a final ATWS rule have contained supplementary information discussing the classification of ATWS related equipment. Some ATWS prevention and mitigation equipment will not be required to be "safety related," but must be classified "important to safety."1/ Given the nuclear industry's and the NRC's synonymous use of these terms, the rule has the potential to create substantial confusion. Utilities do not have a separate classification category of important to safety, nor are there any NRC specified standards to be applied to such a category (if that category is assumed to be different from the safety related category). As with the Environmental Qualification rule, this use of the term important to safety was not included in any of the proposed versions of the rule. Thus, the implications of changing the NRC's classification scheme have not been fully aired in the rulemaking.

d. In the still-pending Shoreham case, docket 50-322 (OL), the Staff supported the argument of intervenors on the systems classification terminology. Although the Staff supported the acceptability of the Shoreham design, the Staff position on terminology was used by the intervenors to call

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1/ See Enclosure A to SECY-83-293 dated July 19, 1983. A table entitled "Guidance Regarding System and Equipment Specifications" indicates that certain equipment need not be safety related, but a footnote to the table states that "this equipment is in the broader class of structures, systems and components important to safety . . . ."

into question over a decade of design of the Shoreham plant. This licensing case triggered a Differing Professional Opinion (DPO) by James H. Conran, a Staff witness at both Shoreham and TMI-1. The issue of "important to safety" has been raised by intervenors in other cases, including Diablo Canyon, Byron and Seabrook.

e. Mr. Conran's DPO has recently been resolved (William T. Russell memorandum to Harold R. Denton, June 22, 1983; Harold R. Denton memorandum to Themis P. Speis, July 11, 1982) on a basis which includes proposals for a generic letter relative to the "important to safety" concept. Mr. Russell's memorandum twice stresses the presumption that use of the term "important to safety" should impose no new regulatory requirements. Whether that is, or can be, true, depends on the content of the generic letter which presumably will be issued in the near future. If that letter endorses a definition of "important to safety" that is inconsistent with its historical equivalency to "safety related," then, contrary to the resolution of the Conran DPO and the Denton Memorandum, there will be new regulatory requirements imposed on all nuclear power plants.

f. The expanded definition of important to safety also appears in generic letter 83-28, issued as a result of the Salem incident. According to section 2.2.1.6, licensees and applicants must provide the NRC Staff with certain information regarding this category of equipment that is supposedly larger than the safety related set. As already noted, utilites do not have, nor do the NRC's regulations require, such an expanded category. Similarly, statements in NUREG-1000, which also relate to the Salem incident, incorrectly assume that important to safety is a broader category than safety related.

It is also recommended that the term "electric equipment important to safety" be replaced by "Class 1E electric equipment" in the second paragraph of the introduction to the proposed Revision 1 to Regulatory Guide 1.89.

As an alternative to these two recommendations, it is recommended that the general terms be replaced with a specific tabulation of the systems/equipment to which the regulatory guide is applicable.

Similar treatment should be accorded other NRC regulatory documents in the future, or until the P827 methodology reaches consensus in the nuclear power community.

Very truly yours,

R. E. Allen
Chairman, NPEC

REA/amb

cc: Paul G. Shewmon
Chairman, Advisory Committee on Reactor Safeguards

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Edward C. Wenzinger, Chief
Instrumentation and Control Branch
Office of Nuclear Reactor Regulation

Letter File

ATTACHMENT C

Numerous recent events have taken place on the unjustified assumption that the Staff/Denton distinction between "safety related" and "important to safety" is correct. In light of the numerous examples cited in Attachment B, however, these actions ignore the historical evaluation of the terms and the long-standing interpretation and application of the NRC's regulations:

a. The Commission approved a final rule on environmental qualification of electric components in January of this year. 48 Fed. Reg. 2729 (January 21, 1983). The rule, by its terms, is applicable to electric equipment "important to safety." That term includes safety related equipment performing the three safety functions defined in Part 100, Appendix A. (10 CFR § 50.49(b)(1)). It also includes, however,

> nonsafety-related electric equipment whose failures under postulated environmental conditions could prevent satisfactory accomplishment of safety functions specified in [Part 100, Appendix A] by the safety-related equipment.

10 CFR § 50.49(b)(2). The important but subtle addition of the term important to safety in defining the scope of the rule and the addition of §§ (b)(2) and (3) were made in the last draft of the regulations, after the close of the public comment

period. It is interesting to note that the scope of the rule could have been defined as electric equipment within the three categories listed in the rule ((b)(1), (b)(2) and (b)(3)) without calling that equipment important to safety. Thus, this last minute addition to the rule contravenes the historical use of the term important to safety without adding anything of substance to the rule. The principal result of its use in the environmental qualification context is that it creates substantial confusion about the meaning of the term.

b. The Staff commissioned the Idaho National Engineering Laboratory to undertake a study of potential "graded QA" requirements reaching substantially beyond the scope of Part 50, Appendix B, and involving equipment important to safety. Identification and Ranking of Nuclear Power Plant Structures, Systems and Components, and Graded Quality Assurance Guidelines -- Draft (November, 1982) (EG&G-EA-6109). This report received widespread criticism and has not been issued in final form. The widespread criticism reflects the difficulties utilities and the NRC Staff will encounter in trying to redefine the class of structures, systems and components important to safety, if that term is ultimately given a broader meaning than safety related. Significantly, the EG&G effort only addresses quality assurance requirements; the difficulties will be multipled if any new classification scheme considers, as it must, the impact on plants for each of the many places in the regulations where the term appears.

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FILE NO.

DIRECT DIAL NO. 804 788-

October 27, 1983

Mr. Samuel J. Chilk
Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Chief, Docketing and
Service Branch

Comments of the Utility Safety Classification
Group on the ANPR for the Backfitting Rulemaking
(48 Fed. Reg. 44217)

Dear Mr. Chilk:

The Commission published in the Federal Register an advance notice of proposed rulemaking (ANPR) on the revision of the backfitting process for nuclear reactors, 48 Fed. Reg. 44217 (September 28, 1983). This rulemaking would establish requirements for the long-term management of the NRC's process for imposing new regulatory requirements for power reactors. The notice invited interested persons to submit written comments and suggestions by October 28, 1983. This letter will provide the comments, in response to the ANPR, of the Utility Safety Classification Group.

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Although various members of the Utility Group will submit additional comments on this ANPR either individually or as members of other organizations interested in the backfitting rulemaking, these comments are intended to focus on the relationship between the safety classification issue and the backfitting rulemaking. In particular, the safety classification issue provides a useful example to consider in developing an appropriate definition for "backfitting." Other pertinent examples, such as the administrative requirements contained in NUREG-0737, also demonstrate the need for the broad definition of backfitting suggested in this letter. These other examples will not be addressed by the Utility Group but should be considered in the rulemaking.

Utility Safety Classification Group

The Group is composed of 38 electric utility companies that have among them over seventy nuclear reactors currently in operation or under construction. A list of the Utility Group's members is attached.

The Utility Group's interest, and indeed its purpose of existence, is the issue of the NRC Staff's efforts to change certain definitions used in systems classification. The regulatory terms "safety related" and "important to safety" have been used synonymously by industry and the NRC over many years of plant design, construction, licensing and operation.

Construction permits and operating licenses have been issued based on licensee commitments to and NRC acceptance of the synonymous use of these terms. The Utility Group believes that recent NRC Staff actions signal a sharp departure from this long-standing definition of the term "important to safety" to cover a much broader and undefined set of plant structures, systems and components than is covered by the term "safety related." The Utility Group's concerns have been set out in detail in a letter from its counsel to William J. Dircks dated August 26, 1983.

The impetus for the NRC Staff's efforts to expand the definition of "important to safety" seems to be a desire to expand some measure of design and quality regulation beyond "safety related" equipment. It is important to note that while variations exist in the details of practice, industry as a whole has generally applied design and quality standards to non-safety related structures, systems and components in a manner commensurate with the functions of such items in the overall safety and operation of the plant. The Utility Group is confident that these measures do adequately ensure that non-safety related equipment will perform its intended function.

Despite the existing measures applied to non-safety related structures, systems and components, redefining "important to safety" without proper review will have far-reaching, pervasive consequences for licensing and general regulation of nuclear plants, particularly for operating plants. Specifically, given the extensive use of the term "important to safety" in the Commission's regulations and Staff regulatory guides, NUREG documents and other licensing documents, as well as licensee submittals, the result of this sharp departure from the long-standing definition of this term would be a largely unexamined and perhaps unintended expansion of the scope of the above documents. Consequently, the Group is intensely interested in Commission efforts to control the imposition of new regulatory requirements.

The Relationship of the Safety Classification Issue to the Backfitting Rulemaking

Question 1.a of the ANPR asks, in essence, whether backfitting management measures should apply to proposed hardware changes or whether the term should be more broadly defined to encompass other activities associated with a nuclear power plant. The Utility Group urges the Commission to define "backfitting" to encompass any change in a regulatory requirement or its implementation which results in any change in the design, construction, testing or operation of a nuclear power plant for which a construction permit or operating license has been issued. A narrower definition of "backfitting" would only partially accomplish the rulemaking's goal of injecting rational management into the process of imposing new regulatory requirements.

In the case of safety classification, the widespread use of the term "important to safety" throughout the Commission's regulations, Staff regulatory guides, NUREG documents and other licensing documents means that any change in the definition of "important to safety" would have ramifications well beyond the imposition of new hardware requirements. Such a change could, for example, affect such activities as quality assurance programs, seismic and environmental qualification programs and training programs. Changes in these and other programs are certain to entail extensive expenditures of utility resources. Thus, at a minimum there is an impact that should be weighed against the corresponding benefits. Moreover, because utility resources are finite, changes in such programs may well result in a dilution or diversion of a utility's resources with a potential corresponding decrease in safety. Consequently, it makes sense to give the term "backfitting" a broad interpretation to ensure that all aspects of the imposition of new requirements, whether the result of new regulations or the clarification or interpretation of existing regulations, are effectively scrutinized.

The Utility Group also urges the Commission to give a broad interpretation to what is considered a "new requirement" in any revised backfitting rule. Question 1.b. of the ANPR asks whether the Commission's interim directions to the NRC Staff provide a useful approach. These interim directions define a backfit as a proposed new staff position or a proposed change in an existing staff position. The Utility Group believes that these directions should be expanded to include instances in which the Staff "clarifies" or "reinterprets" existing staff positions or NRC regulations. The safety classification issue provides a good example of why this should be so.

The present issue was framed by a November 20, 1981 memorandum from NRR Director Harold Denton to all NRR personnel. This memorandum which has never been circulated for public comment and which argues that the category "important to safety" is broader than "safety related" (or "safety grade"), disclaims any intent to alter existing regulatory requirements. Although the Utility Group believes that the NRC Staff's effort to expand the definition of "important to safety" is an attempt to change the meaning of a regulatory term without benefit of rulemaking or other appropriate procedure, some Staff members do not agree. According to them it is merely a "clarification" of the definition of important to safety. Despite the disclaimer and the characterization, revision of the definition of "important to safety" to make it a broader category than "safety related" could have far-reaching, pervasive consequences for the licensing and general regulation of nuclear plants. Thus, clarifications of existing staff positions or new interpretations should be included within any definition of "backfitting."

We hope these comments prove helpful. We will be happy to provide further information if you wish.

Sincerely yours,

Anthony F. Earley, Jr.

T. S. Ellis, III
Donald P. Irwin
Anthony F. Earley, Jr.

Counsel for Utility Safety
Classification Group

Attachment

cc: Chairman Nunzio J. Palladino
Commissioner James K. Asselstine
Commissioner Frederick Bernthal
Commissioner Victor Gilinsky
Commissioner Thomas M. Roberts
William J. Dircks
Herzel H.E. Plaine, Esq.

UTILITY SAFETY CLASSIFICATION GROUP

Arkanas Power & Light Co.
(representing also Mississippi Power & Light, and Louisiana Power & Light)
Baltimore Gas & Electric Co.
Cincinnati Gas & Electric Co.
Cleveland Electric Illuminating Co.
Commonwealth Edison Co.
Consolidated Edison Company of New York
Consumers Power Co.
Detroit Edison Co.
Florida Power Corp.
Florida Power & Light Co.
Gulf States Utility Co.
Illinois Power Co.
Long Island Lighting Co.
Nebraska Public Power District
Niagara Mohawk Power Corp.
Northeast Utilities Service Co.
Northern States Power Co.
Omaha Public Power District
Pacific Gas & Electric Co.
Pennsylvania Power & Light Co.
Public Service Company of Indiana
Public Service Company of New Hampshire
(representing also the Yankee Atomic Electric Power Company, Maine Yankee Atomic Power Co. and Vermont Yankee Nuclear Power Co.
Public Service Electric & Gas Co.
Rochester Gas & Electric Corp.
Southern California Edison Co.
Sacramento Municipal Utility District
SNUPPS
(representing Union Electric Co., Kansas Gas & Electric Co., Kansas City Power & Light Co., and Kansas Electric Power Coop., Inc.)
Toledo Edison Co.
Wisconsin Electric Power Co.
Wisconsin Public Service Corp.

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

DEC 19 1983

T. S. Ellis, III, Esq.
Hunton & Williams
707 East Main Street
P.O. Box 1535
Richmond, Virginia 23212

Dear Mr. Ellis:

The Executive Director for Operations has asked me to respond to your letter of August 26, 1983, in which you express concern, on behalf of the Utility Safety Classification Group, over the NRC use of the terms "important to safety" and "safety-related." Your concern appears to be principally derived from recent licensing cases in which the meaning of these terms in regard to NRC quality assurance requirements has been at issue, and my memorandum to NRR personnel of November 20, 1981.

I agree that the use of these terms in a variety of contexts over the past several years has not been consistent. In recognition of this problem I attempted in my 1981 memorandum to NRR personnel to set forth definitions of these terms for use in all future regulatory documents and staff testimony before the adjudicatory boards. As you are aware, the position taken in that memorandum was that "important to safety" and "safety-related" are not synonymous terms as used in Commission regulations applicable to nuclear power reactors. The former encompasses the broad scope of equipment covered by Appendix A to 10 CFR Part 50, the General Design Criteria, while the latter refers to a narrower subset of this class of equipment defined in Appendix A to 10 CFR Part 100 Section VI(a)(1) and, more recently, in 10 CFR 50.49(b)(1). Based on such a distinction between these terms, it generally has been staff practice to apply the quality assurance requirements of Appendix B to 10 CFR Part 50 only to the narrower class of "safety-related" equipment, absent a specific regulation directing otherwise.

More importantly, however, this does not mean that there are no existing NRC requirements for quality standards or quality assurance programs for the broader class of nuclear power plant equipment which does not meet the definition of "safety-related." General Design Criterion 1 requires quality standards and a quality assurance program for all structures, systems and components "important to safety." These requirements, like those of Appendix B to 10 CFR Part 50, are "graded" in that GDC-1 mandates the application of quality standards and programs "commensurate with the importance of the safety functions to be performed," and expressly allows the use of "generally recognized codes and standards" where applicable

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and sufficient. Documentation and record keeping requirements for such equipment are likewise graded. Pursuant to our regulations, 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 GDC-1 for plant equipment "important to safety," and the more prescriptive requirements of Appendix B for "safety-related" plant equipment.

This distinction between the terms "important to safety" and "safety-related" has been accepted in two recent adjudicatory decisions where the issue was squarely faced. In the Matter of Metropolitan Edison Company, et. al. (Three Mile Island Nuclear Station, Unit 1), ALAB-729, ___ NRC ___ (May 26, 1983): In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), LBP-83-57, ___ NRC ___ (September 21, 1983). Moreover, the Commission itself recognized and endorsed a distinction between the terms in promulgating the Seismic and Geologic Siting Criteria for Nuclear Power Plants (see Section VI(a)(1) and VI(a)(2) of Appendix A to 10 CFR Part 100) and the Environmental Qualification Rule (see Supplementary Information and 10 CFR 50.49(b)). Also, in preparing this response, members of the licensing staff and legal staff reviewed all of the material on this subject provided by your letter, and have also reviewed numerous other regulatory documents, including both staff and Commission issuances over the past several years in which the terms "safety-related" and "important to safety" are used. While it is apparent that some confusion continues to exist with regard to the distinction between the terms, the staff is convinced that the position it has previously taken remains correct.

The final point which I considered in responding to your letter is the consistency of NRC staff practice over the years with our position on this issue, and the technical basis for that practice. While previous staff licensing reviews were not specifically directed towards determining whether in fact permittees or licensees have implemented quality assurance programs which adequately address all structures, systems, and components important to safety, this was not because of any concern over lack of regulatory requirements for this class of equipment. Rather, our practice was 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 hestitated in imposing additional requirements commensurate with the importance to safety of the equipment involved. We intend to continue that practice.

We note that in a more recent letter on this subject (comments dated October 27, 1983 on the Advanced Notice of Proposed Rulemaking on Backfitting Requirements) you have stated that ... "industry as a whole has generally applied design and quality standards to non-safety related structures, systems and components in a manner commensurate with the functions of such items in the overall safety and operation of the plant." The principal difference, then, between the NRC Staff position discussed above and that expressed in your letters appears to be your view that such actions by the industry are purely voluntary, with no regulatory underpinning; whereas, we have been and remain convinced that such actions are required by General Design Criterion 1.

I want to make it very clear that NRC regulatory jurisdiction involving a safety matter is not controlled by the use of the terms such as "safety related" or "important to safety."

A copy of your letters and this response are being sent to all permittees and licensees for information.

Sincerely,

Original Signed By
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation