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CP&L Letter: PE&RAS-98-042  
May 26, 1998

Secretary, U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

FILE NUMBER  
PROPOSED RULE 50  
(63FR20136)

14

Attention: Rulemakings and Adjudications Staff

Subject: **Comments on the NRC Proposed Rule on Codes and Standards:  
IEEE National Consensus Standard (63 FR 20136 - April 23, 1998)**

Dear Sir or Madam:

Enclosed are the comments of Carolina Power & Light Company (CP&L) on the NRC proposed rule amending 10CFR50.55a(h), "Protection and Safety Systems," to incorporate by reference IEEE standard 603-1991, "Criteria for Safety Systems for Nuclear Power Generating Stations."

CP&L recognizes that the proposed amendment to the regulations was prompted by the withdrawal of IEEE 279-1971, and CP&L supports efforts to improve nuclear regulations. However, CP&L does not consider the proposed amendment to be the best approach to handling withdrawn consensus standards. Therefore, CP&L recommends that the NRC withdraw the proposed rule pending further revision, as described in the enclosed specific comments.

Please contact me at (919) 546-6901 if you have questions.

Sincerely,

for D.B. Alexander, Manager  
Performance Evaluation & Regulatory Affairs

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Enclosure

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**Comments on the NRC Proposed Rule on Codes and Standards:  
IEEE National Consensus Standard (63 FR 20136 - April 23, 1998)**

cc: Mr. L.J. Callan, Executive Director for Operations  
Mr. S.J. Collins, Director, USNRC Office of Nuclear Reactor Regulation  
Mr. L.A. Reyes, Regional Administrator, Region II  
Mr. J.B. Brady, USNRC Resident Inspector - HNP, Unit 1  
Mr. G.A. Hutto, USNRC Resident Inspector - HBRSEP, Unit 2  
Mr. V.L. Rooney, USNRC Project Manager - HNP, Unit 1  
Mr. J.W. Shea, USNRC Project Manager - HBRSEP, Unit 2  
Mr. C.A. Patterson, USNRC Resident Inspector - BSEP, Units 1 and 2  
Mr. D.C. Trimble, USNRC Project Manager - BSEP, Units 1 and 2  
Chair J.A. Sanford - North Carolina Utilities Commission

**Comments on the NRC Proposed Rule on Codes and Standards:  
IEEE National Consensus Standard (63 FR 20136 - April 23, 1998)**

Comment 1: The proposed rule to endorse IEEE Std. 603-1991 in 10CFR50.55a does not establish the technical basis for the change. In particular, the proposed rule:

1. Identifies no problem that has resulted from the implementation of the previous standard IEEE Std. 279;
2. Identifies no improvement in nuclear safety or plant performance that can be expected to result from the implementation of IEEE Std. 603-1991; and
3. Does not permit the licensee to make a risk-informed decision about the technical merits of implementing IEEE Std. 603-1991 on future plant modifications.

In essence, the withdrawal of IEEE Std. 279 only creates an administrative problem for the regulations because 10CFR50.55a specifically cites IEEE Std. 279. If the proposed rule becomes final with the explicit citation of IEEE Std. 603-1991, the same problem will recur when the IEEE decides to withdraw or revise IEEE Std. 603-1991. A better solution is to revise 10CFR50.55a to reference Regulatory Guide 1.153, which endorses IEEE Std. 603-1991. If IEEE Std. 603-1991 changes at some future date, Regulatory Guide 1.153 can be revised as necessary without rulemaking.

Comment 2: Another reason to revise Paragraph (h) of 10CFR50.55a to reference Regulatory Guide 1.153, rather than directly endorsing the standard, is so that the NRC can provide better guidance which would permit the licensees to make better decisions. The proposed rule provides an endorsement of IEEE Std. 603-1991 conditioned, in part, on an engineering judgment of the extent of the modification involved. A Regulatory Guide would provide the necessary additional guidance and criteria to enable this engineering judgment to be made reliably and consistently.

1. The example in the Supplemental Information illustrates the need for additional guidance with regard to systems, subsystems and components. In the example, "neutron monitoring" is described as a protection system with respect to the plant's final safety analysis report (FSAR). And, the average power range monitor (APRM) is identified as a portion of that neutron monitoring system. Although the proposed rule does not indicate what "portion" means (e.g., component or subsystem) with respect to the APRM, the APRM is clearly not the entire system. However, the proposed rule indicates that the replacement of just a certain set of APRM components (i.e., the detectors, cards and power supplies) would be considered a complete replacement at the system level, and would therefore invoke the IEEE-603-1991 requirement. Licensees would likely have difficulty using this contradictory example to implement the rule appropriately.

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2. Additional guidance is needed with respect to boundary and support questions. If replacement of just a certain set of components can be considered a complete replacement at the system level, do other components in that system need to be replaced although they were not originally part of the modification scope? Do components or systems that support IEEE-603-1991 components or systems need to conform to IEEE-603-1991? Do the components that form the boundary to IEEE-603-1991 systems need to conform to IEEE-603-1991?

Regulatory Guide 1.153 is a more appropriate format to provide the necessary additional guidance and criteria than paragraph 10CFR50.55a(h).

- Comment 3: Although the Supplemental Information section of the proposed rule discusses the applicability to nuclear power plants with operating licenses, the first paragraph of 10CFR50.55a lacks a reference to paragraph (h). The first paragraph of 10CFR50.55a, which was unchanged by the proposed amendment, states, in part:

*"Each operating license for a boiling or pressurized water-cooled nuclear power facility is subject to the conditions in paragraphs (f) and (g) of this section and each construction permit for a utilization facility is subject to the following conditions ... ."*

By including references to paragraphs (f) and (g) and omitting a similar reference to paragraph (h), the regulation seems to indicate that paragraph (h) is not applicable to nuclear plants with operating licenses. If the revised paragraph 10CFR50.55a(h) was intended to be applicable to operating plants, then the first paragraph of 10CFR50.55a should include a reference to paragraph (h) as it does for paragraphs (f) and (g).

- Comment 4: The use of the word "initiated" in 10CFR50.55a(h)(2) is ambiguous. Paragraph 10CFR50.55a(h)(2) states, in part:

*"System-level replacement of protection systems and addition of new safety systems in existing operating nuclear power plants initiated on or after January 1, 1999, must meet the requirements stated in IEEE Std. 603-1991 and the correction sheet dated January 30, 1995."*

Does "initiated" mean declared OPERABLE per Technical Specifications, or field installation of the design has been started, or the design work has begun, or the problem has been identified and the potential solution has been included in the long range budget? For a multi-unit plant, if the replacement or addition is initiated before January 1, 1999 on one unit would the remaining unit(s) be permitted to initiate the same change or would the designs be forced to diverge?