



P.O. Box 28450, SAN JOSE, CA. 95159
TELEPHONE (408) 252-5371

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

DOCKET NUMBER

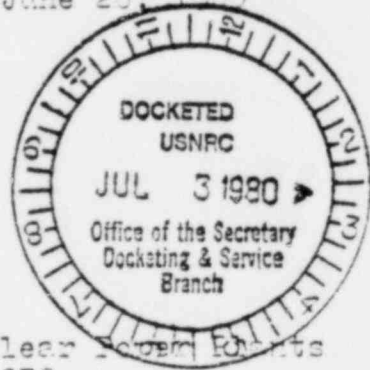
PROPOSED RULE

PR 50 (33)

June 29, 1980

45 FR 36082

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Docketing and Service Branch



SUBJECT: Notice of Proposed Rulemaking,
Nuclear Regulatory Commission
10 CFR Part 50
Fire Protection Program for Nuclear Power Plants
Operating Prior to January 1, 1979.

REFERENCE: Federal Register, Volume 45, No. 105,
Thursday, May 29, 1980

Gentlemen:

I am very pleased to offer my comments on the subject
proposed rule as published in the Reference document.

I. Background

As a member of the nuclear power industry and acting in a
consulting role, I have been involved in the improvement
of the fire protection programs of nuclear power plants
including those that are presently operating, those under
construction, and those in design since the beginning of
the recognition of the deficiencies which resulted from
the occurrence of the Browns Ferry fire in 1975. I have
been involved in providing comments on the various re-
gulatory requirements from the very beginning and in the
implementation of these requirements on operating plants,
plants under construction, and plants in design, both
in the United States and in foreign countries where U.S.
nuclear power plants have been or are being built. I have
also taught training seminars in foreign countries on
the reason for, meaning of, and importance of the imple-
mentation of the new requirements in terms of providing
the very necessary improvement in safety of our nuclear
power plants from the Fire Protection Program standpoint.
In the application of these new requirements to really
implement the "Defense in Depth" concept, I have developed
a multi-discipline team concept of a plant systems engineer
and a qualified fire protection engineer, which I feel
has been very effective in providing evaluations and
subsequent modifications that truly enhance and improve
the fire protection programs of these nuclear power plants.
I have a Bachelor of Engineering degree, a Master of Elec-
trical Engineering degree, and am a registered Professional
Engineer in Control Systems and Nuclear in the State of
California.

Acknowledged by card 7-3-80 [signature]

L-4-1, 17, 50

8007240 375



Secretary to the Commission-page 2

In my review of the proposed rule and with substantial depth of knowledge in the regulatory process that has brought us to the point we are today, I find that I am strongly opposed to the proposed rule for the following general and specific reasons:

II. General

A. Status of Present Requirements.

Branch Technical Position APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants" was first published on a rush basis after the Browns Ferry fire and as such, although it served to get a much needed effort immediately started, resulted in substantial controversy, especially regarding its application to operating plants. Appendix A to BTP 9.5-1 was then issued to cover this case, and further resulted in the issuance of the first comment issue of Regulatory Guide 1.120, "Fire Protection Guidelines for Nuclear Power Plants." Since substantial controversy still existed at the end of the first review period and incorporation of some of the comments, upon the recommendation of the ACRS, Regulatory Guide 1.120 was issued again, as amended, for an extended one year re-review. The end of the extended review period was November 1973. As required by law, the Nuclear Regulatory Commission has provided commentators with a "resolution of Comments" document, however, the Regulatory Guide has not yet been issued for use more than a year-and-a-half after the end of the review period.

B. The Importance of the Peer Review Process.

Not so recent events, e.g., the issuance of Wash 1400 and recent events, e.g., TMI and the resultant President's Commission Report, show that the peer review process and "mindset" are examples to be followed and avoided, respectively, in achieving the appropriate level of safety needed in our nuclear power plants. It is important to note that, as described in the subject Notice of Proposed Rulemaking, the comments received during the extended review period were generally restatements of earlier comments. As a member of the industry with a deep interest in safety, this admission indicates a lack of attention to the results of the peer review process and a "mindset" by regulatory on certain particular arbitrary requirements, which ultimately are not cost effective and may result in a decrease in the overall safety of our nuclear power stations.

C. The Regulatory Process.

It is significant that Regulatory Guide 1.120 has not

entor

Secretary to the Commission--page 3

yet been issued, but instead, we find a proposed rule which contains some of the very arbitrary requirements which have not been adequately resolved during the peer review process. In this sense, the proposed rule can only be viewed as a means to circumvent the normal process of the issuance of a Regulatory Guide. A Federal Regulation must be followed, whereas a Regulatory Guide, an effective system which we have been using for a long time, allows room for differences, but which differences must be satisfactory to regulatory. This results in a semi-flexible system, especially important in high technology areas, and avoids tendencies to "mindset" which we all have.

III. Comments on Proposed Rule for "Fire Protection for Nuclear Power Plants Operating Prior to January 1, 1979" to 10 CFR 50.

A. General.

1. The proposed rule should be withdrawn since it is unnecessary, is circumventing the peer review comments already made and reiterated and considered important by the ACRS, and demonstrates a tendency toward a "mindset" in regulatory, none of which is directed toward the enhancement of safety in our nuclear power plants.
2. The proposed rule will remove the ability of the applicant and hence industry to propose and demonstrate viable options that are more cost effective and which can indeed enhance the safety of a particular plant beyond those that would be provided by this proposed regulation.
3. The proposed rule provides for no definition of terms used, e.g., "qualified" and there is no basis for the evaluation; e.g., the Design Basis Fire is included.
4. Since, as indicated in the "Supplementary Information" section of the proposed rule, "the phenomenon of fire is so unpredictable in occurrence and development that measures to prevent unacceptable consequences may not be omitted on the basis of low probability of occurrence," can a set of minimum requirements be cast in concrete, so to speak? I have had occasion to specify a 6 hour fire wall because of the hazard involved. In consideration of the proposed rule, a 3 hour wall would be adequate according to law.
5. The proposed rule will completely change the effective dates of application as well as the mechanism for application of fire protection requirements from those established by BTP 2.5-1, and by Appendix A to BTP 2.5-1, i.e., "... Plants Docketed Prior to July 1, 1976."

entor

Secretary to the Commission-page 4

IV. Specific Comments.

- A. Section II of the Proposed Rule, "General Requirements."
Subsection A: In the first sentence, the word "programs" should be inserted after the word "protection."
B. Section III, "Specific Requirements."

1. Subsection A: The sentence "Water may not be excluded from an area as a fire extinguishment merely on the basis of potential water damage to safe shutdown equipment." is a new one and seems to preclude the use of other types of extinguishing systems and suggests very limited and costly alternates. This item has not been subjected to the peer review process.

2. Subsection A: The last paragraph seems to infer that two (2) intakes (structures?) are required to provide the two water sources from a large body of water and also conflicts with the text (Proposed Appendix R to 10 CFR 50) of the proposed rule.

3. Subsection C: Hydrant Block Valves. This requirement is new and has not been subjected to the peer review process.

4. Subsection J: Emergency Lighting. Here is a classical example of "mindset" in that no adequate justification for an 8 hour emergency lighting capability has ever been provided. Such devices, and there are many needed in each plant, would have to be specially made.

C. Proposed Appendix R to 10 CFR 50.

1. See my Section IIIC. This proposed appendix should not be included in 10 CFR 50.

2. Subsection IIE: Fire Hazard Analysis. A separation by a 3 hour barrier or at least 50 feet may not be adequate, depending on the hazard. Additionally, a definition of the Design Basis Fire is not included.

3. Subsection IIIC: Hydrant Block Valves. This is a new requirement which has not been subjected to the peer review process.

4. Subsection IIH:

a. Item 2a, "Early Warning" is not defined.

b. Table 1, Use of the abbreviation "Do" is inappropriate for a regulation.

c. Item 2c, the sentence "The brigade leader ... of plant safety systems" should have the words added "and other systems available for shutdown and cooldown of the plant." Similarly, the sentence "Such competence by the brigade leader ... plant safety systems" should have the words added "and other equipment."

entor

Secretary to the Commission-page 5

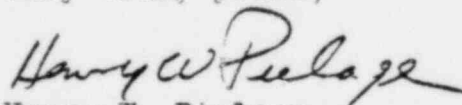
5. Subsection III.I: Paragraph b, "qualified" is not defined.
6. Subsection III.J: The requirement for an 8 hour minimum battery supply remains controversial.
7. Subsection III.L: The content of this entire subsection has not been subjected to peer review as it has been applied on a case-by-case basis to various applicants based on memorandum internal to regulatory.
8. Subsection III.P: Requirements for SSE design for the Reactor Coolant Pump Lubrication System are new and have not been subjected to the peer review process.
9. Subsection III.Q: Note G. The noted separation may not be adequate depending on the hazard.

V. Conclusion:

The proposed rule is unnecessary, circumvents the normal process of the issuance of a Regulatory Guide, contains new requirements that have not been subjected to the peer review process, contains old requirements which are controversial and which have not been adequately resolved demonstrating a "mindset" in regulatory which will not necessarily result in cost effective enhancement of safety of our nuclear power plants.

This proposed rule should be discarded, appropriate resolution made of comments on Regulatory Guide 1.120, and this guide be issued for use as soon as possible.

Very truly yours,


Henry W. Pielage
Vice President
Engineering Applications