

APR 2 1990

Mr. Vittorio Pareto
DEVONRUE
180 Lincoln Street
Boston, Massachusetts 02111

Dear Mr. Pareto:

Your letter of March 27, 1990, documented your understanding of our telephone conversation of March 26, 1990, regarding questions concerning a two unit nuclear plant site with 2/3 EDG configuration (i.e., EAC Category "D"). The staff has reviewed your letter and marked it to reflect our more detailed understanding of the conversation regarding this matter. The marked copy of your letter is attached.

In addition it is highly desirable that the alternate ac (AAC) power source be diverse from the plant emergency ac sources. (EDGs). As you heard in the March 20, 1990, meeting between NRC and Commonwealth Edison, the NRC staff feels strongly that the AAC power source should be diverse in order to gain relaxation in 2/3 EDG configuration reliability target. Also in this meeting, the NRC staff agreed that this AAC power source could be non-class 1E.

I hope this will clarify the understanding of NRC staff position on this subject.

Sincerely,

Original Signed by

Faust Rosa, Chief
Electrical Systems Branch
Division of Systems Technology

Attachment:
As stated

cc: A. Marion (NUMARC)

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March 27, 1990
DLNRC 9003-01/VEP

Mr. Faust Rosa, Chief
Electrical Systems Branch
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Rosa:

I would like to take this opportunity to confirm our telephone conversation last Monday, March 26, 1990. As you may recall, I asked some questions concerning the hypothetical case of a two unit power plant with a 2/3 EDG configuration (i.e., EAC category 'D'). Per NUMARC 87-00, this requires them to maintain a 97.5% target reliability with a four hour coping duration. I understand that if their EAC classification was either A, B, or C, they would have the option of selecting a lower target reliability (i.e., 95%) in exchange for a longer coping duration (i.e., eight hours). However, due to the relatively smaller diesel generator redundancy associated with 'D' plants, this flexibility is not available.

On the other hand, NUMARC 87-00 does not require power plants in this condition to purchase a diesel generator as an Alternate AC power source; this alternative is not anticipated in Table 3-8. Thus, the question arises: Is it possible to configure an Alternate AC power source that would allow utilities in these specific circumstances to select a lower target reliability, i.e. 95%, in exchange for an 8 hour coping duration?

My understanding of your reply is that this would indeed be possible under the following circumstances:

1. The AAC source is a Class 1E power source that is sized to power all safe shutdown loads at both units.
2. The AAC source is connectable to all safeguard busses at the site.

the complete contingent of safety related and non-safety related loads associated with one safety division of each unit that are normally expected to be available for the LOOP condition

*or eight hour
as determined
from Table 3-8*

DLNRC 9003-01/VEP, dated March 27, 1990

I appreciate the time you took to discuss this issue. Please let me know if I misunderstood any of these requirements.

Sincerely,

Vittorio Pareto
for Vittorio Pareto, Ph.D.