

OFFICIAL

JAN 24 1984

Duke Power Company
ATTN: Mr. H. B. Tucker, Vice President
Nuclear Production Department
422 South Church Street
Charlotte, NC 28242

Gentlemen:

SUBJECT: REPORT NOS. 50-413/83-22 AND 50-414/83-19

Thank you for your response of October 7, 1983, to our Notice of Violation issued on September 7, 1983, concerning activities conducted under NRC Construction Permit Nos. CPPR-116 and CPPR-117.

We have reviewed your response to Violation A and have concluded, for the reasons presented in the enclosure to this letter, that the violation occurred as stated in the Notice of Violation. Therefore, in accordance with the requirements of 10 CFR 2.201, and within 30 days of the date of this letter, please resubmit your response to the Notice.

We have examined your response to Violation B and found that it meets the requirements of 10 CFR 2.201. We will examine the implementation of your corrective actions during future inspections.

Should you have any questions concerning this letter, we would be happy to meet with you and discuss the matter further.

Sincerely,

James P. O'Reilly
Regional Administrator

Enclosure:
Staff Evaluation of Licensee Response

cc w/encl:
J. W. Hampton, Station Manager
J. C. Rogers, Project Manager

bcc w/encl:
Document Control Desk
Resident Inspector
State of North Carolina

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01/13/84

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JA Ishinski
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HDance
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RLewis
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RMartin
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ENCLOSURE 1

STAFF EVALUATION OF LICENSEE RESPONSE
DATED OCTOBER 7, 1983

Our assessment of your reasons for denial of the violation is as follows:

- A. You argue that the sources of information, data, equations, appendices, applicable tables, etc., were identified either by reference to the "Alternate Analysis Criteria for Reactor Building and Auxiliary Building Pipe and Supports", (Specification CNS-1206.02-04-0000, Revision 5) at the beginning of the calculation or by specific reference within the body of the calculation as deemed appropriate.

As we stated in paragraph 6.b. of the inspection report which accompanied the Notice of Violation - "Specification No. CNS-1206.02-04-0000, Revision 5, consisted of 6 sections, 11 appendices, 7 thermal cases and numerous tables for load calculations". The violation was based on the fact that "The Design Calculations showed a lack of references in terms of using sections, appendices, identification of thermal cases, equations, and applicable tables as specified in Design Specification CNS-1206.02-04-0000". In other words, a reference which contains options which may lead to the wrong conclusion cannot be shown as a general reference; the specific options selected must be identified.

- B. You make the following statement in your denial: "It is not reasonable to expect the presentation of the application of a 'Cookbook' criterion to stand alone without considering the criterion itself as an integral part of that presentation. A reviewer must become familiar with the criterion itself and all the steps required for its application before attempting to follow the calculation which is primarily a presentation of results". We agree with your statement that the calculation should not be expected to stand alone; we disagree with the statement that this type of calculation is primarily a presentation of results.

Our contention is that as required by your design QA program, this type of calculation is a presentation of the problem; the clearly documented process which was followed to answer the problem; and finally the presentation of the results. The problems listed in the citation did not present a clearly documented process which was followed to arrive at the answer. It is not enough that a checker be able to arrive at the same answer as the designer, he must be able to follow the logic trail that the original designer used without consultation with the designer.

- C. You argue that the alleged errors in the calculations "... are not considered errors at all, but represent good engineering and appropriate application of the criteria".

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Our conclusion is that, for the cases noted in the violation you have established that the "alleged" errors were in a conservative direction. You have also shown that the alternate analysis methodology is in itself extremely conservative. Neither the calculation sheet, nor your explanation establish that the "alleged" errors were the result of a conscious effort by the design engineer to provide additional conservatism. If, in fact it was a deliberate act, there should have been a notation in the calculation justifying why a particular dimension or coefficient was used. Without justification for changes to dimensions or coefficients the checker should consider it to be in error, whether or not the final result was more conservative than it should have been.

In summary, we still feel that the calculations referenced in the citation presented a violation of the requirements of DPC QA Manual Procedure PR-101.