

COMMITTEE CORRESPONDENCE

SOCIETY/COMMITTEE:

ANSI-N551, Steering Committee
on Pumps

SUBJECT:

Minutes of Steering
Committee Meeting on April 21, 1980

ADDRESS CORRESPONDENCE TO:

Earl J. Brown
Office for Analysis and Evaluation
of Operational Data
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

AGENDA ITEM:

FILE NO.:

551-2-80

DATE:

May 30, 1980

TO:

Mr. M. M. Wepfer
Westinghouse Electric Corporation
Electro-Mechanical Division
Cheswick, PA 15024

Dear Mr. Wepfer:

I believe that item 11, Qualification Issue, of the minutes is an inadequate representation of my comments at the meeting (Dr. W. F. Anderson will respond separately about reference to his previous participation in the group). The purpose of this letter is to explain and clarify my comments about methods of qualification.

As you indicated in the minutes, the proposed standards address qualification by test, analysis, experience, or a combination of these methods. My comments were based on the premise that functional qualification of equipment should mean a demonstration of operability during and/or after (as necessary) a prescribed severe set of conditions. It follows that testing would constitute an acceptable demonstration of operability. If analysis is to be used to demonstrate operability, it should be based on tests and hence a correspondence between the testing and analysis or, to use the phrase in the minutes, "demonstrated matching between calculation and test." In general, analysis by itself would not suffice as demonstration of operability (please note that this does not per se reject qualification by analysis, but rather implies that its use to demonstrate operability must be supported in fact).

My concerns about qualification by experience are in the general areas of difficulty to verify the actual conditions of exposure during operating experience, the lack of precise definition in the proposed standard of the requirements that constitute verification of operating conditions and the practical aspects related to the probability of obtaining experience (when, if and how) under plant conditions of Design. In short, the concept of functional qualification by experience has merit, but it would seem that practical aspects of verification pose many problems.

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THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

The reference to "multiple testing should be required" should have been placed in the context of the strength of the claim or assertion of what is accomplished by compliance with the standard. For example, the contrast between a claim that compliance with the standard was demonstration of operability under conditions of design at any time in the service life of the pump regardless of years of service and a claim that compliance demonstrates the pump can operate under a prescribed severe set of conditions of design could result in a rational decision that multiple testing would be needed in some circumstances. The comment was intended to evoke an objective review by the steering committee such that the claim of the standard is represented by the requirements in the standard rather than a desirable goal or claim (in short, state only that which the standard will accomplish and don't imply that it will serve as a panacea).

In addition to the preceding clarification of my comments, it is important that the steering committee recall that while participating in the group I am an individual presenting personal views and that I do not (as indicated in the letter of appointment) present an NRC position. Therefore, statements such as "unacceptable to NRC" and "NRC approval through former representative" are incorrect and should be deleted from the minutes. Within this context for my participation, I would also suggest that your recommendation to disband because "the NRC and the industry are at odds" is inappropriate and could be counterproductive to efforts to develop national standards for qualification of equipment. Furthermore, I believe it is constructive to highlight technical issues of concern and that progress can be made even though some issues may not be completely desirable to all. Also, the overall contribution of a complete standard can override the deficiency of a single issue and I would expect that an NRC decision would be based on the overall contribution of a particular standard.

Earl J. Brown
Member

Attachment:
Minutes of N551 Meeting of 4/21/80

cc w/attachment:
H. Dobel
A. Phillips
N551 Membership

Distribution:
- Central file
AEOD Reading file
AEOD Chron file
EBrown, AEOD
V.S. Noonan, NRR
Z.R. Kosztoczy, NRR
J.J. Zudans, NRR
W.F. Anderson, SD
G.A. Arlotto, SD

AEOD
EJ.B.
EBrown:plj
5/30/80

COMMITTEE CORRESPONDENCE

WMW-560

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EMD
Cheswick, Pa. 15824
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MEETING OF THE STEERING COMMITTEE

ANSI-N551 (PUMPS)

April 21, 1980

GREATER PITTSBURGH AIRPORT HOTEL

Present: E. J. Brown - NRC
F. P. Bussick - EG&G Sealol
C. V. Fields - Westinghouse NSD
T. E. Fitzsimmons - Combustion Engineering
F. H. Light - Philadelphia Electric Co.
W. M. Wepfer - Westinghouse Cheswick

1. MINUTES

The minutes of the previous meeting (February 19, 1980) were accepted.

2. MAILING LIST

The mailing list of the Steering Committee was updated. A copy is attached to these minutes.

3. N-551.1 GENERAL REQUIREMENTS

F. Light reported that the Steering Committee ballots indicated four approvals with comment, three approvals without comment, and one not returned. The comments have been resolved. On the basis of the report, the Steering Committee voted unanimously to accept the document with minor charges and to refer it to the next level. This will be the ASME Subcommittee on Qualification of Nuclear Plant Equipment. F. Light will arrange for this submittal.

4. N-551.2 PUMP ASSEMBLIES

T. Fitzsimmons reported that several comments had been received and that these would require action. He has sent a letter to the committee members asking if there was any interest in having another meeting to finalize or modify the document. He will report on his findings at the next meeting. No further action was taken on document acceptance at this meeting.

5. N-551.3 SEALS

F. Bussick reported that he has received favorable reaction to his Draft D7 and had resolved the comments. The resultant draft containing the minor changes carries the same designation of D7 but the date is changed to April, 1980.

The Steering Committee voted to accept the document and to send it to the next level. F. Light will arrange for the latter action.

6. N-551.4 MOTORS

C. V. Fields reported on the current IEEE actions with respect to the motor portion of the document. No Steering Committee action is possible until the IEEE completes the necessary work on the applicable documents.

7. N-551.5 TURBINES

Because of time problems and the absence of R. Hebert, no action was taken on this document.

8. N-551.7 SUPPORTS

No report.

9. TABLE OF CONTENTS

E. Brown stated that he thought a very serious situation would exist unless all the satellite documents were set up in the same format with respect to the Table of Contents. He suggested the contents as used in N-551.4 D5 of October, 1978, but after some discussion the committee agreed that it would be more desirable to use the table shown in P-627. It was agreed that each task force chairman would adjust his document editorially to fit this format but that no changes of substance would be made in any documents already approved by the Steering Committee.

10. J. Vogelwede

J. Vogelwede was unable to attend the meeting but sent word by telephone that he had approved all Steering Committee ballots so far distributed.

* 11. Qualification Issue

E. Brown raised a serious objection to the method of qualification which he said was unacceptable to NRC. Present procedures permit qualification by analysis, experience, test or a combination of these methods. He insisted that qualification include demonstrated matching between calculation and test and that multiple testing should be required.

The remainder of the Steering Committee was strongly opposed to this position, stating that it represented a major change in direction of effort at a late date and would be unacceptable. In addition, the previous course had received the NRC approval through the former representative Dr. W. Anderson.

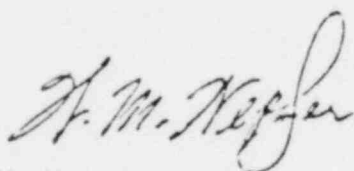
There was much discussion on the subject, and the chairman stated that the subject would be considered at the next meeting (June). If no resolution is reached at that time, then a final decision will be made at the following (September) meeting. If the NRC and the industry representatives, that is the remainder of the Steering Committee, are still at odds, then the indicated action should be to disband the committee and report to Nuclear Codes and Standards that no text will be forthcoming on N-551.

12. NEXT MEETING

The next meeting of the Steering Committee will be held in Norfolk, Virginia, during the June Code Week meetings. F. Light will arrange for the exact time and place.

13. SEPTEMBER MEETING

A September meeting is planned. W. Wepfer will arrange a time and place and will inform the members at a later date.



W. M. Wepfer, Chairman
ANSI-N551

bfm

cc: W. Anderson
H. Dobel
A. Phillips
Mailing List