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MINUTES OF THE
ACRS SUBCOMMITTEE MEETING ON
REGULATORY ACTIVITIES
JANUARY 6, 1981
WASHINGTON, D.C.

The ACRS Subcommittee on Regulatory Activities held a meeting on January 6, 1981, at 1717 H Street, N.W., Washington, D.C. Mr. Sam Duraiswamy was the Designated Federal Employee for the meeting. A list of documents submitted to the Subcommittee is included in Attachment A.

ATTENDEES:

ACRS: C. P. Siess (Subcommittee Chairman), M. Bender, M. W. Carbon and D. A. Ward.

Principal NRC Speakers: W. Morrison, W. Anderson, L. Porse, E. Wenzinger, E. Merschoff and T. Scarborough.

INTRODUCTORY STATEMENT BY THE SUBCOMMITTEE CHAIRMAN

Dr. Siess, the Subcommittee Chairman, convened the meeting at 8:45 a.m. and indicated that the purpose of the meeting was to review the following items:

1. Regulatory Guide (Task No. SC 704-5), "Functional Specification For Active Valve Assemblies in Systems Important to Safety in Nuclear Power Plants" (post comment).
2. Regulatory Guide (Task No. RS 110-5), "Nuclear Power Plant Simulators For Use in Operator Training" (post comment).
3. Proposed Regulatory Guide 1.28, Revision 3, "Quality Assurance Program Requirements (Design and Construction)" (pre comment).

He stated that the Subcommittee had received neither written comments nor requests for time to make oral statements from members of the public.

REGULATORY GUIDE (TASK NO. SC 704-5), "FUNCTIONAL SPECIFICATION FOR ACTIVE VALVE ASSEMBLIES IN SYSTEMS IMPORTANT TO SAFETY IN NUCLEAR POWER PLANTS"

This Guide is intended to provide guidance to the industry to overcome some of the problems associated with valve operation, and also to help them develop proper and uniform definitions in the equipment specifications for the application of the valve, its environment, and the appropriate loading conditions. It endorses, with several exceptions, ANSI N278.1.1975, "Self-Operated and Power-Operated Safety-Related Valves Functional Specification Standard".

Dr. Siess expressed concern about the numerous exceptions taken in this Guide to ANSI 278.1-1975. He pointed out that this Guide seems to be a major revision to the Standard; it expands and even tries to change the intent of the Standard in several areas; this sort of change will make it difficult for the industry to compare the intent of this Guide with that of the Standard. He commented that the overall function of this Guide, as to how it affects the existing industry procedures and particularly how it affects safety issues and whether it is related directly to licensing issues, is not made clear. Indicating that some of the commenters feel that the requirements of this Guide have already been followed by the industry, Dr. Siess asked whether there is a need for this Guide, and if so, is there a better way of doing it.

Mr. Anderson responded that, based on the operating experience with valve operability, the industry and the NRC Staff realized that there were at least some deficiencies in functional specifications of valve assemblies that were contributing to valve failures. They have realized also that the lack of adequate communication between the valve manufacturers and the purchasers and users of valves were also one of the significant contributors to valve failures. Consequently, as a first step, ANSI N278.1 was developed in 1975 with the intention of improving communication between the valve manufacturers and the valve purchasers. However, the Standard, by itself, did not provide complete assurance of valve assembly operability. As a result, this Guide was developed by the NRC Staff to provide a uniform basis and approach for specifying the functional requirements and operability considerations for valve assemblies. The NRC Staff believes that conformance with the requirements of this Guide by the industry will provide better assurance on the valve assembly operability.

With reference to one of the comments from Westinghouse, which states "the requirements for valve assembly operability are already included in other Regulatory Guides and are being implemented; therefore there is no need for this Guide", Dr. Carbon asked whether the Westinghouse statement is true, and if it is, is there a need to reiterate the already existing valve assembly requirements in another Guide.

Mr. Page responded he believes that the existing requirements are not as specific as those included in this Guide. Further, he is not sure that all of the valve manufacturers and purchasers follow uniform procedures for specifying the functional requirements and operability considerations for valve assemblies.

Dr. Carbon asked about the financial impact of this Guide on the industry. Mr. Page responded that he did not believe that this Guide will have any major financial impact on the industry.

Dr. Siess asked about the effort and the cost associated with identifying the manually-operated valves that are important to safety. Mr. Page stated that he does not know the answer.

After detailed discussion, the Subcommittee suggested the following:

With regard to Regulatory Position C.2.b(1), Dr. Siess commented that the NRC Staff's intent in including the time-dependence data requirement that has already been included in Section 3.2 of ANSI N278.1 is not clear; he suggested that additional clarification with regard to the need for repeating such a requirement would be helpful.

In relation to Regulatory Position C.2.b(2), Mr. Bender suggested that including certain information pertinent to the restraint system of the valve would be helpful.

With regard to Regulatory Position C.2.b(4), Mr. Bender stated that the fluid state of the valves should be specified.

Indicating that the term "fail safe" used in Regulatory Position C.2.c(1) seems to put all the responsibility on the valve manufacturer, which does not seem appropriate, Mr. Bender suggested the use of the term "desired valve position" instead of "fail safe".

Regarding Regulatory Position C.2.c(3), Mr. Bender commented that it does not seem appropriate to specify the "power torque" for the valve.

He believes that it is better to specify the conditions under which the motor must operate.

With regard to the requirement for identifying differential pressure for seat leakage limits in Regulatory Position C.2.d(1), Dr. Siess commented that this requirement seems to have been included already in the Standard. He suggested that the NRC Staff check to see whether it is already included in the Standard.

The NRC Staff indicated that they will give consideration to the comments and suggestions made by the Subcommittee and make changes to this Guide as appropriate.

After further discussion, the Subcommittee indicated that it will recommend this Guide to the full Committee during the 249th meeting for concurrence with the Regulatory Positions, with the understanding that certain changes proposed by the Subcommittee and agreed to by the NRC Staff will be incorporated prior to issuing this Guide for industry use.

REGULATORY GUIDE (TASK NO. RS 110-5), "NUCLEAR POWER PLANT SIMULATORS FOR USE IN OPERATOR TRAINING"

Mr. Merschoff reviewed briefly the objective of this Guide, indicating that it describes a method for specifying the functional requirements of nuclear power plant simulators and for specifying similarity requirements between the simulator and its reference plant. He discussed briefly the changes made to this Guide as a result of some public comments.

Dr. Siess pointed out that the Subcommittee had received several comments from Dr. Kerr (by telephone). Some of Dr. Kerr's comments are as follows:

1. It is not a good idea to concur with a Regulatory Guide that endorses a Draft Standard, especially considering the fact that the Draft ANS 3.5 that is endorsed by this Guide is yet to be approved by the ANSI Committee. The urgency in issuing this Guide at this time is not clear.
2. A simultaneous task ought to be development of a training program for use in training the operator in a simulator.
3. The need for requiring simulation of a fire alarm is not justified.

Dr. Siess sought response from the NRC Staff to Dr. Kerr's comments.

The NRC Staff responded that the need for improvements in operator training in the areas of abnormal and emergency training became apparent as a result of operator errors reported in the licensee event reports. Recognizing that it would be feasible to perform such training in simulators, more and more simulators are being ordered by the industry. The NRC Staff believes that some guidance for specifying the functional requirements of the simulator should be given to the industry. The NRC Staff feels that due to the important nature of this Guide, it is necessary to endorse or work parallel with the draft ANS Standard.

With regard to Dr. Kerr's comment on the training program, the NRC Staff stated that an ANS Standard is under development to provide guidance on the training program. As soon as that Standard is developed, the NRC Staff intends to endorse it in a Regulatory Guide.

Regarding the simulation of a fire alarm, the NRC Staff stated that the requirement for simulating a fire alarm is included because they believe that certain information as to what procedures are followed to control the fire, and what instrumentation is affected in the location of the fire, would be helpful to the operator.

Dr. Siess commented that although he believes that simulation of a fire alarm is a good idea, he does not believe it belongs in this Guide; he believes that it should be part of the Guide that covers the training program.

Mr. Bender commented that he does not believe that this Guide should be issued for industry use at this time because, in his opinion, it does not provide all of the necessary information for defining a training simulator. He believes that a training program should be developed to make it clear how the simulators will be used in training the operator. He believes that there is no rush in issuing this Guide until a training program is defined.

After further discussion, the Subcommittee decided to refer this Guide to the full Committee for further discussion on January 8, 1981; after discussing the

need for issuing this Guide at this time and the adequacy of the information provided in here for defining the training simulator, the full Committee will decide whether to concur with the Regulatory Positions of this Guide.

Dr. Siess suggested that it would be helpful if Mr. Hanauer could attend the ACRS meeting on January 8, 1981 to brief the Committee on the state-of-the-art on human factors.

Dr. Carbon suggested that it would be helpful if the NRC Staff could answer a specific question during the full Committee meeting as to how the implementation of this Guide will help the industry as contrasted to what would happen if it is not implemented.

PROPOSED REGULATORY GUIDE 1.28, REVISION 3, "QUALITY ASSURANCE PROGRAM REQUIREMENTS (DESIGN AND CONTRUCTION)"

This Guide describes a method acceptable to the NRC Staff for complying in part with the Commission's Regulations with regard to Quality Assurance (QA) program requirements during design and construction of nuclear power plants.

Revision 2 to Regulatory Guide 1.28 endorsed, with certain exceptions, ANSI N45.2-1977. Revision 2 to this Guide was reviewed by the Regulatory Activities Subcommittee during the October 4, 1978 meeting. The full Committee concurred in the Regulatory Positions of this Guide during the October 5-7, 1978 meeting.

The proposed Revision 3 to this Guide endorses, with certain exceptions, ANSI/ASME NQA-1-1979, "Quality Assurance Program Requirements For Nuclear Power Plants". This Standard includes requirements and guidance for the establishment and execution of QA programs during the design, construction and operation of nuclear power plants. This Standard is based on the contents of ANSI N45.2-1977 and seven of the ANSI N45.2 series Standards which contain guidance on programmatic QA requirements.

Due to lack of time, the Subcommitee did not discuss this Guide in detail. The Subcommittee indicated that the NRC Staff could issue this Guide for public comment.

Dr. Siess thanked all participants and adjourned the meeting at 12:55 p.m.

ATTACHMENT A

LIST OF DOCUMENTS SUBCOMMITTED TO THE SUBCOMMITTEE

1. Regulatory Guide (Task No. SC 704-5), "Functional Specification For Active Valve Assemblies in Systems Important to Safety in Nuclear Power Plants" (post comment).

2. Regulatory Guide (Task No. RS 110-5), "Nuclear Power Plant Simulators For Use in Operator Training" (post comment).

3. Proposed Regulatory Guide 1.28, Revision 3, "Quality Assurance Program Requirements (Design and Construction)" (pre comment).