April 13, 2000

COMMISSION VOTING RECORD

DECISION ITEM: SECY-00-0011

TITLE: EVALUATION OF THE REQUIREMENT FOR LICENSEES TO UPDATE THEIR INSERVICE INSPECTION AND INSERVICE TESTING PROGRAMS EVERY 120 MONTHS

The Commission (with Chairman Meserve and Commissioners Diaz, McGaffigan, and Merrifield agreeing and Commissioner Dicus disagreeing) disapproved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of April 13, 2000.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

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Annette Vietti-Cook
Secretary of the Commission

Attachments: 1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
EDO
PDR
DCS

VOTING SUMMARY - SECY-00-0011

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. MESERVE		X			X	3/29/00
COMR. DICUS	X				X	4/2/00
COMR. DIAZ		X			X	3/28/00
COMR. McGAFFIGAN		X			X	4/3/00
COMR. MERRIFIELD		X			X	3/27/00

COMMENT RESOLUTION

In their vote sheets, Chairman Meserve and Commissioners Diaz, McGaffigan, and Merrifield disapproved the staff's recommendation and instead approved Option 2, which would maintain the current requirement that licensees update their inservice inspection and inservice testing programs every 10 years to the latest edition of the ASME Code that is incorporated by reference in NRC regulations. Commissioner Dicus approved the staff's recommendation as maintaining an acceptable level of safety and better meeting the remaining NRC performance goals. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on April 13, 2000.

Commissioner Comments on SECY-00-0011

Chairman Meserve

I approve Option 2, which would maintain the current requirement that licensees update their inservice inspection and inservice testing programs every 10 years to the latest edition of the ASME Code that is incorporated by reference in NRC regulations. (The version of the Code that is currently referenced is the 1995 Edition with the 1996 Addenda. 10 C.F.R.

50.55a.) I thus disapprove the staff's proposal to establish the 1995 Edition with the 1996 Addenda as the baseline, eliminating the 10-year updating requirement.

Both the ASME and the ACRS have strongly urged that the Commission maintain the current updating requirement. They observe that the ASME codes are subject to continuing refinement and improvement and that the codes have not reached a level of maturity such that further updating will provide little benefit. For example, the ASME points out that some 347 changes have been introduced since the 1989 edition (through 1999) that serve, among other ends, to improve safety and to reduce radiation exposure. ASME asserts that the failure of the NRC to incorporate later editions of the Code in the requirements, absent justification under a backfit analysis, would serve to undermine ASME because of the disincentive of volunteers to engage themselves in an ASME process that will not necessarily affect operating plants. Moreover, because some states routinely establish requirements based on current ASME codes, the acceptance of the staff's approach would create the anomaly that non-nuclear facilities might be required to conform to more modern codes than nuclear facilities.

The Nuclear Energy Institute, representing licensees, urged us to remove the 10-year update requirement. (The NEI also argued, but did not strongly urge, that we retreat from the 1995 edition to the 1989 edition.) The NEI acknowledges that the costs of the update vary among licensees -- the range presented to us was from $200,000 to $1.5 million per year -- and are not so significant as to constitute the primary argument for departure from our current 10-year update requirement. Rather, NEI argues that the update requirement constitutes an inappropriate departure from the backfit rule (10 C.F.R. 50.109). ACRS responds that the inservice inspection and testing requirements are designed to assure the integrity of the reactor coolant pressure boundary and, as a result, are related to defense-in-depth considerations that do not lend themselves well to backfit analysis. Thus, ACRS argues that the update requirement should be maintained in light of the fact that the integrity of the reactor coolant pressure boundary is a cornerstone of the regulatory system.

The ACRS argument could be perceived to open the door for other exemptions to the application of the backfit rule and certainly we do not intend to exempt all requirements that are related to defense in depth from that rule. But, given that the update is an element of our current regulations, I am prepared to tolerate this limited departure from complete intellectual consistency in our regulations. I am mindful in this connection of the fact that, if licensee extensions are granted, some plants may be operating well into the 21st century and it would be inappropriate to freeze these still evolving requirements at the 1995 level. Moreover, I am mindful that industry participates in the development of the ASME codes and that costs are considered in the amendment process. Thus, although the revisions may not be analyzed with the rigor required by our backfit analysis, the costs and benefits are implicitly weighed.

The staff asserted at our meeting that one element of its proposal that would constitute an improvement of the current process was its intention to analyze code revisions more frequently and, as appropriate, to endorse revisions, thereby allowing voluntary licensee application of the revised code, or to determine whether, using a backfit analysis, portions of the code should be made mandatory before the 10-year update requirement would become obligatory. It seems to me that such review activity should be part of the normal process; more frequent endorsement of ASME codes does not depend on acceptance of the staff's proposal to eliminate the update requirements. Therefore, I urge the staff to review and endorse future code revisions on a more timely basis.

Commissioner Dicus

I approve the staff's recommendation, Option 1.B., to replace the 120-month inservice inspection and testing program update requirement with a baseline consisting of the 1995 Edition with the 1996 Addenda of the ASME Code. I believe it will maintain safety because significant safety improvements in the ASME Code would be imposed in accordance with 10 CFR 50.109 either by revision of the inservice inspection and testing baseline requirements or through identification of a specific ASME Code provision. All stakeholders have also stated that this option would maintain an acceptable level of safety.

I recognize arguments both for and against the staff's proposal have been made by various stakeholders. Therefore I would like to note that I believe all the options proposed by the staff would maintain an acceptable level of safety. Consequently, my decision was based on weighing the staff's proposal against the remaining NRC performance goals.

I believe an important component of the staff's proposal is their continued participation in ASME Code activities and their continued review of future editions and addenda of the ASME Code. These activities will provide additional assurance that significant safety issues and the need to rebaseline will be identified as required, and will contribute to maintaining safety. In addition to emphasizing the need for staff to continue reviewing future editions and addenda of the ASME Code, I strongly urge the staff to improve the timeliness of their review. I believe stakeholders have made it very clear that public confidence can be increased most directly by prompt endorsement of future ASME Code editions and addenda.

Another significant aspect of this issue that influenced my decision is that current inservice inspection and testing update requirements (i.e., mandatory routine updates) are not consistent with other new requirements imposed on operating reactors which are required to be assessed in accordance with the 10 CFR 50.109 backfit analysis. ACRS has put forth an argument that inservice inspection and testing requirements are designed to assure the integrity of the reactor coolant pressure boundary and are related to defense-in-depth considerations that do not lend themselves well to backfit analysis. This is inconsistent with NRC's overall regulatory approach, in that we do not require updating to new standards in other areas to maintain defense-in-depth, unless 10 CFR 50.109 provisions are satisfied. Therefore, I continue to support the concept of consistency in our regulations.

A number of arguments have been made against the staff's proposal, such as: potential increased costs for industry, vendors and NRC staff; a decline in industry participation in ASME Code activities; and potential inconsistency in the range of ASME

Code editions and addenda applied by licensees. With respect to the first two issues, the Commission has heard opinions on both sides of the argument with only anecdotal details for support. It is my opinion that the cost will remain the same, or potentially decrease, dependant on how each licensee chooses to upgrade their inservice inspection and testing program. I do not believe there will be a decline in industry participation in ASME Code activities, because NRC will continue to review future editions and addenda for potential rebaselining, and therefore industry has a vested interest in the content of the ASME Code. As for the third issue, potential inconsistency in the range of ASME Code editions and addenda applied by licensees, there is inconsistency between plants even today due to differing plant configurations, accessability restrictions and the choice of some licensees, but not all, to take advantage of technological advances prior to their next required 120-month update.

Therefore, based on the arguments above, I am in support of the staff's proposal to eliminate the required 120-month update.

Commissioner Diaz

I have carefully reviewed SECY-00-0011, the related letters and reports from the ACRS and the staff. I have also considered the information provided by the ASME, the ACRS, industry representatives, and the staff during the March 24, 2000, Commission briefing on the requirements to update the licensee's inservice inspection (ISI) and inservice testing (IST) programs. The staff's discussion of the burden reduction benefit of the recommended Option 1.B was not convincing, and I have doubts with the practicality of backfitting the potential new Code improvements on the licensees. Furthermore, I am concerned with the added variability to be introduced if the ISI/IST program updates were made voluntary. In the interest of maintaining the level of safety and regulatory stability, I believe the current ISI/IST update requirements offers both, particularly when all licensees' programs would be from the same baseline Code Editions.

The ASME consensus Code development process has served this industry well for many years and I believe it will continue to do so. The contributions to the Code from the representatives of the industry, the stakeholders, the professional societies and the regulator have been valuable and it should be continued.

Since the current ISI/IST update requirements in 10 CFR 50.55a provide an adequate level of safety, and there is consensus that each of the options presented in SECY-00-0011 will maintain an acceptable level of safety, I believe that option 2 is the most prudent approach to achieve the Commission's performance goals. Therefore, I disapprove the staff's recommendation of Option 1.B as described in SECY-00-0011. Instead, I approve Option 2, to retain the current 120-month ISI/IST update requirement in 10 CR 50.55a.

Commissioner McGaffigan

I approve Option 2, to retain the 120 month ISI/IST update requirement of 10 CFR 50.55a.

The safety and reliability of the nuclear industry have benefitted significantly from the consistent improvements in the ASME Code. The Code is one of the NRC's great success stories. It demonstrates that consensus industry standards can work. Vendors, users and regulators have worked together for decades to improve both safety and efficiency of key vital components, including safety piping, pumps, valves, and the reactor vessel itself. The Code has evolved somewhat in each edition, and I cannot ignore the view of the ACRS that further improvements are likely and the fact that the current fleet of reactors (some of which are currently using editions of the Code from the early 1980's) may be operating until the 2040's, or in Watts Bars' case, to 2055. Neither can I ignore the opinion of the ASME representatives that the Code will lose support and perhaps cease to flourish under Option 1(b) such that the potential for future safety gains would be lost.

Also, I applaud the professionalism of those members of the staff who expressed their dissenting views on this issue and the openness of management in supporting them and forwarding their concerns to the Commission.

Finally, I concur with the Chairman and Commissioner Merrifield on the need for more timely staff endorsement of ASME Code editions and standards.

Commissioner Merrifield

I disapprove the staff's recommendation as stated in Option 1.B. and instead, approve Option 2.

I commend the staff for bringing this matter before the Commission and for clearly laying out the options available. This is a very difficult matter for which credible arguments can be made for each of the options. It raises to the forefront such difficult issues as: the definition of regulatory stability, the application of the backfit rule, and the interpretation of NRC performance goals. I believe this matter demonstrates that the staff is making a good faith effort to improve the efficiency and effectiveness of agency processes and is willing to challenge long-standing processes that have never been subjected to such challenge before. If we are to become a better regulator, this must continue. While I disagree with many of the staff's positions with respect to how the various options stack up against our performance goals, and disapprove of the staff's recommendation, I encourage the staff to continue to bring these types of matters before the Commission for consideration. I hope that my vote in no way discourages the staff from aggressively challenging other long-standing processes and practices.

After carefully reviewing SECY-00-0011 and listening to related presentations at the March 24, 2000 Commission meeting, I am convinced that Option 1.B. would add to the complexity of an update process that already necessitates about 300 relief requests per year. Under the baseline approach proposed in Option 1.B., the staff would continue to review and endorse the latest editions of the ASME Code. As technological advances are made and improved testing and inspection techniques are discovered, I am convinced that we would see greater customization of ISI/IST programs and an increase in the number of

relief requests. I believe that this customization would add to the complexity associated with the NRC's oversight of ISI/IST programs, and would likely have adverse resource implications on both the agency and our licensees.

I also find Option 1.B. unacceptable because it could result in plants using the same ISI and IST inspection and testing techniques and acceptance criteria for the remainder of their license terms. With license renewal, this could be in excess of 40 years for many plants. As history has shown, technological advancements and improvements in inspection and testing techniques over such a long period are a certainty. Yet, with the elimination of the 120-month ISI/IST update requirement, it is likely that some licensees would take advantage of these advancements and improvements only if they were of financial benefit. I believe that an approach which permits programmatic stagnation is not in the best interests of the nuclear industry, the public, or the NRC, especially in light of plant aging and increasing competitive pressures.

My approval of Option 2 in no way represents satisfaction with the current NRC endorsement process or 120-month ISI/IST update process. Clearly, the staff must be more timely with its endorsement of Code editions and addenda. The staff must also work closely with ASME leadership, the nuclear industry, and agency stakeholders to pursue process improvements which would add rigor and discipline to the ASME cost-benefit decision-making process, decrease the need for relief requests, and reduce the complexity associated with the update process and the NRC's oversight of that process.

Finally, I believe it is important that the staff raised the issue of applying the backfit provisions of 10 CFR 50.109 to ASME Code update requirements. I believe the backfit evaluation standards of 10 CFR 50.109 provide a foundation for regulatory stability and discipline. 10 CFR 50.109 has served the NRC, our licensees, and our stakeholders well, and thus, my decision to not subject ASME Code updates to its backfit provisions was made only after I carefully considered how the staff's recommended option could exacerbate the complexity, inconsistency, and program divergence associated with our current update process. My decision also came after considering the diverse makeup of the ASME members that produce Code changes and the consensus process they use. Given that 60% of the group of experts that decide on Code changes represent utilities and consultant organizations, and only 40% represent regulatory bodies and insurance companies, I believe that considerations of increased safety versus cost are implicit in the ASME consensus process. Again, I encourage the ASME leadership, the nuclear industry, and the NRC staff who participate in ASME activities to ensure that future ASME Code changes are subjected to a rigorous and disciplined process which carefully weighs increased safety versus cost, and is not tolerant of frivolous changes.