

August 30, 2007

Kevin Ennis  
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ASME International  
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Dear Mr. Ennis:

The U.S. Nuclear Regulatory Commission (NRC) staff appreciates the opportunity to comment on the potential realignment of the ASME International Boiler and Pressure Vessel (BPV) Standards Committee. In February 2007, the Board on Nuclear Codes and Standards approved a motion to evaluate the concept of realigning. On August 15, 2007, during the BPV committee meetings in New Orleans, LA, ASME officers and staff made a presentation to the volunteers on the potential realignment. A copy of the presentation slides is attached.

The slides indicate that there are four reasons for considering realignment: global developments and new stakeholders in the nuclear and non-nuclear industry (e.g., hydrogen, bioprocess); new technologies in advanced materials (elevated temperatures); greater use of probabilistic methods; potential to expand ASME; and need to make greater use of electronic tools and web-based conferencing. The ASME Board on Nuclear Codes and Standards (BNCS) and the Board on Pressure Technology Codes and Standards (BPTCS) have formed a Task Team to consider realignment. The slides also indicate that the Task Team will review and respond to feedback from the volunteers in the September/October 2007 time frame and make recommendations to the BPV, BNCS, BPTCS committees as well as the Standards Board of Directors for endorsement and approval.

Three potential structures under a realignment have been identified: expand the BPV Standards Committee; separate the BPV Standards Committee into three standards committees (nuclear, service, traditional BPV); and separate the BPV Standards Committee into four standards committees (III, VIII, XI, and the remaining subcommittees under one standards committee). At the presentation on August 15, 2007, the ASME presenters indicated that other realignment approaches had been discussed and were not rejected. If indeed some of these approaches continue to be viable options, they should be shared with the volunteers for discussion.

The presentation slides identify eight key needs to be addressed. Issues such as making greater use of electronic tools, having common technology methods across the BPV Code, addressing publication problems, decreasing the time required to develop Code actions, ensuring technology transfer and cross-industry review, and maintaining high quality products are issues that would be better addressed through ASME procedure changes and increases in staffing levels.

The remaining identified key needs are: expand membership and capabilities; increase and facilitate global participation; address rapidly expanding workload on staff and volunteers; and keep ASME out front as the Code of choice throughout the world.

We believe that the following NRC staff concerns should be addressed in any potential realignment:

- The first option discusses expansion of the current Standards Committee. It is difficult to see how this option would address issues such as new technologies and emerging issues. It would seem more appropriate to increase involvement at the working group and subgroup levels responsible for developing Code requirements. Expansion of the Standards Committee should be tied to a larger goal of increasing international participation at all committee levels.
- The second option is the separation of the current Standards Committee into three separate standards committees. A concern with the separation of the book sections is the resulting process requirement to have each of the three standards committees have a first consideration vote on each other's letter ballots as a means of maintaining technical liaison. First, this will result in a significant workload increase for subcommittee members when they have to review and vote on items from 10 book sections. Second, it is not clear that the goal of having "good technical pipelines between three Standards Committees and two Boards" will be served by having each of the standards committee members voting on items with which they have no technical background or are otherwise unfamiliar. Third, subcommittee ballot schedules are more flexible than that of the standards committee. The standards committee adheres to a shorter time period which opens shortly after the previous meetings and remains open for a few weeks. Such a schedule would be problematic for Sections III and XI as nuclear industry representatives and the NRC have typically interacted on Code items over the entire three months between meetings. In addition, many in the nuclear industry will not be able to support such a schedule during the outage seasons.
- The third option is the separation of the current Standards Committee into four standards committees: 1) Section III; 2) Section XI; 3) Section VIII; and 4) Sections I, II, IV, V, IX, X, and XII. With the forecast construction of many new nuclear plants, a primary goal should be to have the nuclear sections report to one standards committee. Advanced materials and designs will result in issues common to both design and operation, such as developing reliable and effective nondestructive examination (NDE) methods, ensuring appropriate material requirements for Section III fabrication and Section XI fabrication and repair/replacement, ensuring that construction repairs result in favorable residual stresses (operational evidence that repaired sites are where degradation initiates) and inspectability issues (difficulty for NDE to penetrate complicated dissimilar metal welds), ensuring effective quality assurance, and ensuring that access and inspectability are adequately addressed in construction and repair/replacements. Also, we are concerned with the adequacy of review of items if subcommittees begin functioning as standards committees. The subcommittees are focused on particular technical areas whereas the standards committee has wider technical expertise. Finally, in such a structure where

subcommittees become standards committees, we are concerned that a technically focused body may not have a representative balance of interests.

- There has been some discussion of standards committee meetings overseas. The NRC will not be able to support overseas meetings. Approximately 20 NRC staff attend any given domestic meeting. Our foreign travel budget is limited and is not likely to increase. We have only been able to send a limited number of staff for meetings held in Canada. Due to the higher cost and increased time out of office necessary to support foreign travel, we would not be able to support overseas Code meetings. Most other U.S. participants have similar limitations on foreign travel.

With regard to the expected new construction in the U.S. nuclear industry, materials and components will likely be provided by overseas suppliers. Assessing current committee structure to increase efficiency and effectiveness given globalization efforts is reasonable. Construction of advanced reactors will result in: new requirements for advanced materials (Section II); a need for new construction requirements and adequate preservice examination (Section III); new requirements for the reliable and effective NDE of advanced materials (Section V); advanced welding practices (Section IX); and effective and reliable inservice inspection and new repair/replacement requirements (Section XI).

The information that has been provided to the volunteers to date makes it difficult to judge whether all of the issues of a proposed realignment have been thoroughly evaluated. The impending new nuclear plants with advanced designs are raising new design and operational issues. The nuclear industry continues to face emerging operational issues in the current fleet as the plants age. Any changes to the current committee structure must address this changing landscape so that the ASME continues to adequately serve what has become a significant portion of its users.

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