



96-0000455

The Under Secretary of Energy
Washington, DC 20585

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February 16, 1996

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DNF SAFETY BOARD

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W.
Washington, D.C. 20004

Dear Mr. Chairman:

This is in response to your January 22, 1996, letter informing the Department of the Defense Nuclear Facilities Safety Board's acceptance of the "UF₆ Cylinder Program System Requirements Document." This document was submitted in accordance with the Department's Implementation Plan for Board Recommendation 95-1.

Our responses to the comments provided with your letter are enclosed. These responses will be incorporated in a planned revision to the system requirements document. We anticipate that as we develop the Systems Engineering Management Plan, scheduled for submittal to the Board on March 30, 1996, additional changes and clarifications to the system requirements document will be required. We plan to submit an amended system requirements document reflecting the responses provided herein and any additional changes and clarifications by April 30, 1996.

The above approach to amending the system requirements document was agreed to by the Department of Energy and the Defense Nuclear Facilities Safety Board staff in a January 3, 1996, meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas P. Grumbly".

Thomas P. Grumbly
Acting Under Secretary

Enclosure

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ENCLOSURE

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**RESPONSE TO COMMENTS RECEIVED ON THE
SYSTEM REQUIREMENTS DOCUMENT**

Defense Nuclear Facilities Safety Board Comment 1, Cylinder Pedigree: The description of the cylinder integrity and storage condition requirements (section 5.4.1.1) notes that a small population of cylinders may not have been manufactured to American Society of Mechanical Engineers standards. The system requirements document, however, does not clearly address this population of cylinders. It would appear appropriate to include requirements in the system requirements document calling for identification of this cylinder population for determination of what manufacturing standards were not (or potentially not) used and for evaluation of continued cylinder acceptability.

Department of Energy Response: Revision 2 of the system requirements document that will be submitted to the board on April 30, 1996, will incorporate specific requirements to address the issues of this comment.

Defense Nuclear Facilities Safety Board Comment 2, Painting of Skirted Cylinder Heads: Per the Department of Energy Implementation Plan for Recommendation 95-1, an effort to paint skirted cylinder heads has begun as a priority action. While the system requirements document calls for the initiation of an overall cylinder maintenance coating program, there is no mention in the system requirements document of this ongoing effort.

Department of Energy Response: Requirement 5.2.1.2-9 states that "other methods for reducing time of wetness... will be evaluated..." Painting regions of the skirted cylinder heads is one such method that has been evaluated and implemented as a near-term action while a full-scale program for painting cylinder bodies is being developed (i.e., requirement 5.2.1.2-2). The skirt painting activity will be identified in the Systems Engineering Management Plan in response to requirement 5.2.1.2-2 of the system requirements document. Skirt painting is an interim activity until implementation of a full body painting program and will be identified as such in the system requirements document.

Defense Nuclear Facilities Safety Board Comment 3, Handling of Degraded Cylinders: The system requirements document discussion related to cylinder handling (section 5.2.3) is focused on minimizing handling damage during operations. There is no discussion, however, that clearly addresses evaluation of the handling of potentially degraded cylinders and incorporation of any special controls or precautions. This issue was discussed in the technical report forwarded by recommendation 95-1.

Department of Energy Response: Initial analyses of the requirements in the system requirements document have also identified this concern. In response to your comment and the initial analyses, an additional requirement will be incorporated in revision 2 of the system requirements document. Actions to respond to this new requirement will be identified in the Systems Engineering Management Plan. These actions will address the special controls and precautions to assure safe handling operations.

Defense Nuclear Facilities Safety Board Comment 4, Reduction of Cylinder Wetness and Degradation: The system requirements document contains a discussion (section 5.2.1.2) stating “... *As part of continuous improvement*, other methods for reducing time of wetness and cylinder degradation will be evaluated *as identified* [emphasis added]...” This could imply that proactive identification of such measures is not necessary. This would not be consistent with the intent of recommendation 95-1.

Department of Energy Response: For clarification, the phrase “as identified” will be removed from this requirement in revision 2 of the system requirements document. The Department of Energy is committed to continuous improvement and aggressive pursuit of reducing time of wetness as evidenced in our response to comment 2.

Defense Nuclear Facilities Safety Board Comment 5, Training and Qualification of Personnel: The system requirements document discussion (sections 5.2 and 5.3) regarding training of “performing personnel” and qualification of “operators” is not clear. Specifically, it is not clear what training and/or qualification requirements are intended to apply to the supervisory personnel, equipment operators, inspection personnel, engineering support personnel, etc., that are identified by the personnel list in section 4 of the system requirements document.

Department of Energy Response: The initial analysis of requirement 5.2.3.2-7 (qualification of handling equipment operators) has determined that requirements should be expanded to identify other personnel and the degree of their training/qualification. This expanded scope of the requirement will be relocated to support the major objective, “Improve Procedures and Training,” section 5.3 of the system requirements document. In addition, the initial analyses of all the requirements have resulted in considering the revision of this major objective, “Improve Procedures and Training,” to emphasize improving conduct of operations. The identification of specific personnel and their training and qualification requirements will be incorporated into the Systems Engineering Management Plan and revision 2 of the system requirements document.

Defense Nuclear Facilities Safety Board Comment 6, Facility Monitoring: The system requirements document states that cylinder walk-throughs will be required and references DOE Order 5700.6C, Quality Assurance Program, as the governing document. While DOE Order 5700.6C provides general requirements on management assessments, DOE Order 5480.19, Conduct of Operations Requirements for DOE Facilities, provides more specific guidance on the conduct of such inspections by operating personnel and would also be an appropriate reference for this activity.

Department of Energy Response: Reference to this DOE Order 5480.19 will be incorporated in revision 2 of the system requirements document. In addition, DOE Order 5480.19 is expected to be referenced extensively in requirements developed to meet any revision in the major objective, "Improve Procedures and Training," as mentioned in our response to your fifth comment.