

A.J. Eggenberger, Chairman
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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 23, 2005

The Honorable Samuel W. Bodman
Secretary of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Bodman:

On April 5, 2004, the Defense Nuclear Facilities Safety Board (Board) sent a letter to the Secretary of Energy outlining issues related to the Department of Energy's (DOE) approach with respect to the use of formal risk assessment in oversight, operations, and decision making at defense nuclear facilities. In response to the Board's letter, DOE committed to the development of a comprehensive policy governing the development and application of risk assessment methodologies, including expectations related to the quality and level of review required for specific applications of formal risk assessments. Earlier this year DOE proposed finalizing this policy by March 2006.

The Board has reviewed an early draft of DOE's policy on the use of the risk assessment and offers general comments in the enclosure. In addition to these comments, the Board is concerned that even though DOE has not yet developed expectations, guidance, and implementing procedures governing the use of formal risk assessment, individual program elements and field entities continue to apply various approaches on an ad hoc basis. Examples of these applications include the ongoing activities associated with evaluating the risk of multi-unit operations at Pantex, as well as the proposed use of risk assessment to disposition some of the technical issues associated with Recommendation 2004-2, *Active Confinement Systems*. Such an approach is almost certain to lead to the development and application of a wide range of methodologies of varying quality and utility, some of which could lead to inappropriate safety decisions.

Furthermore, it appears that other potential applications may exist but have not been targeted for a systematic assessment of risk. One such example is that of the various dismantlement options being proposed for the B53 weapon system. Therefore, pursuant to 42 U.S.C. § 2286b(d),

the Board requests a report within 60 days of receipt of this letter providing the details of a more aggressive plan for developing and implementing an appropriate DOE-level policy, along with the necessary implementing guidance, to ensure the appropriate use of risk assessment methodologies at defense nuclear facilities.

Sincerely,

A handwritten signature in black ink, appearing to read "A. J. Eggenberger". The signature is written in a cursive style with a large, sweeping "E" and "B".

A. J. Eggenberger
Chairman

c: The Honorable Linton Brooks
The Honorable John S. Shaw
The Honorable James A. Rispoli
Mr. Mark B. Whitaker, Jr.

Enclosure

ENCLOSURE

Comments on Draft Policy, DOE PXXXX, Department of Energy Nuclear Risk Assessment Policy

1. The draft policy does not establish sufficient guidance or direction that would be useful in enhancing DOE's use of risk assessment. The goal of the policy should be to mandate a consistent and uniform approach to the use of risk assessment methodologies.
2. DOE should avoid the development of new terms and definitions, such as "enhanced risk assessments", that are not widely used in the risk assessment community.
3. The policy should contain more clearly defined roles and responsibilities. Furthermore, the authority to determine the adequacy of DOE's overall approach to risk analysis should not be delegated down to the field and site office managers.
4. The policy should not be limited to nuclear risk assessment, but should also be applicable to non-nuclear risk assessments at defense nuclear facilities.
5. To limit misuse of risk assessment methodologies, the policy should address inappropriate application of probabilistic approaches.