DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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MEETING

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TUESDAY

OCTOBER 21, 2003

The Board met in the DNFSB Hearing Room at 625 Indiana Avenue, N.W., Suite 300, Washington, D.C., at 9:00 a.m., John T. Conway, Chairman, presiding.

PRESENT:

JOHN T. CONWAY	Chairman
A. J. EGGENBERGER	Vice Chairman
R. BRUCE MATTHEWS	Board member

STAFF PRESENT:

RICHARD A. AZZARO	General Counsel
J. KENT FORTENBERRY	Technical Director
JAMES J. McCONNELL	Deputy Technical Director
KENNETH M. PUSATERI	General Manager

ALSO PRESENT:

LINTON F. BROOKS	Administrator, National Nuclear Security Administration
BOB CARD	Under Secretary for Energy Science & Environment
KYLE MCSLARROW	Deputy Secretary of Energy
GLENN PODONSKY	Director, Office of Independent Oversight & Performance Assurance

P-R-O-C-E-E-D-I-N-G-S

9:06 a.m.

CHAIRMAN CONWAY: My name is John Conway, I'm the Chairman of the Defense Nuclear Facilities Safety Board, and I will preside over the continuation of this meeting.

Today's meeting and hearing were publicly noticed in the Federal Register on September 26th of this year. The meeting and hearing are held open to the public in accordance with the provisions of the government in the Sunshine Act.

Today's meeting is an extension of the hearing held on September 10, and constitutes the second in a series in which the Board is examining the Department of Energy's [DOE] current and proposed models of safety oversight and management of the contracts and contractors it relies upon to safely accomplish the mission assigned to DOE under the Atomic Energy Act of 1954, as amended.

We will focus on DOE's new initiatives and what impact, if any, they may have upon assuring adequate protection of the health and safety of the public and workers at DOE's defense nuclear facilities.

I welcome today's presenters, members of

the public, members of the press in our audience, and those viewing our proceedings electronically.

In accordance with the Board's practice, and as stated in the Federal Register notice, we will welcome comments from interested members of the public at the conclusion of the testimony.

And that concludes my opening remarks. I do want to give recognition that two of the Board's former Board members, Jack Crawford and Joe DiNunno are here with us in the audience, and we are glad to see you back, fellows.

And with that, I very much appreciate the fact that the Deputy Secretary, Mr. Kyle McSlarrow; Bob Card, the Under Secretary; and Linton Brooks, the Administrator of NNSA [National Nuclear Security Administration] are here, and we thank you very much for coming here and joining with us today.

Mr. Deputy -- one of our staff will say a few words before we begin.

MR. McCONNELL: Thank you, Mr. Chairman. My name is Jim McConnell, and I'm the Deputy Technical Director for the Defense Nuclear Facilities Safety Board.

At the beginning of the first session on oversight that the Board held in September, I provided

some remarks on behalf of the Board Staff, concerning the role of oversight, in the larger system, by which DOE directs its activities.

I'm pleased, this morning, to add to that discussion, focusing more specifically on DOE's current and planned oversight activities.

At the last public meeting, I described the system that DOE uses in its roles as customer, owner, and enforcer to communicate its expectations to its contractors, and the method by which DOE ensures that its expectations are fulfilled.

I discussed the role of oversight in this model and suggested a list of questions that would be useful to consider during this public meeting. I would like to restate those questions and provide just a few additional comments that might be useful to consider during today's discussions with DOE officials.

First, can DOE's management and oversight be streamlined without degrading its ability to ensure public health and safety? There is a school of thought that organizations involved in complex, high risk activities, such as DOE, can streamline their organizations without degrading their ability to accomplish their mission safely.

One of the key attributes of these so-

called high performing organizations is an independent and technically competent engineering enterprise that centrally controls the technical safety specifications and expectations of the organization, including the technical waiver authority.

That, then, allows the freedom for the organization to decentralize control of operations. This point was emphasized in the Columbia accident investigation and also highlighted by the Naval Reactors programs representatives at the last meeting.

It is also generally accepted that redundancy in systems, be they engineered systems or human organizational systems, if properly implemented can improve overall system reliability.

It is interesting to note that the Columbia Accident Investigation Board [CAIB] identified reductions in institutional redundancy at NASA [National Aeronautics and Space Administration] as one of the organizational contributors to the Columbia shuttle accident.

On the other hand, organizational redundancy can be expensive. DOE personnel have commented many times in the past that it is inefficient to have checkers checking checkers.

One of the objectives of DOE's current changes in its oversight structure appears to be to reduce redundancy in order to improve efficiency. It will be interesting to learn how DOE has balanced the apparently conflicting interests of institutional redundancy and efficiency.

A third point relevant to DOE's oversight policy decisions concerns contract models. One perspective of DOE's recent contract model changes is that incentives to complete work quickly implicitly provide an incentive for contractors to work safely.

The logic is that schedule delays, caused by safety problems, will prevent achieving performance goals and, therefore, contractors are motivated to work safely.

This logic holds, to an extent. Almost no one would take an action if he or she knew that it would result in someone getting hurt. Conversely, almost everyone would put in place an additional control if he or she knew that it would prevent an accident that would otherwise occur.

The more realistic scenario, however, involves what decisions a contractor will make under uncertainty. That is: how much risk is acceptable for how much benefit?

DOE's recent policy changes regarding contract structure, for example, accelerated clean-up incentives, have clearly increased the benefits of successful risk taking. All else being equal, this would, predictably, lead to riskier decision-making.

It will be useful to hear, today, how DOE's safety oversight practices will ensure that appropriate decision-making criteria are maintained.

One final comment on this topic is a practical question. If the Department of Energy's system would rely heavily on contractors to develop the data that will be used as a basis for contractual and regulatory action, how will DOE ensure continued open, honest, and critical self-assessments on the part of its contractors?

The second area of questions from the last meeting was: what criteria should be used to judge the adequacy of federal and contractor oversight systems?

It is difficult to define acceptance criteria for these new oversight systems in advance. Clearly the best information on the adequacy of an oversight model is the long-term performance of DOE and its contractors.

However, DOE, particularly NNSA [National Nuclear Security Administration], is making changes to

its organizational structure and staffing prior to and during this transition that could make it difficult to react to problems if they occur.

In addition, much of the discussion and planning for new oversight models that the Board staff has observed or studied focuses on the generation and presentation of data, with a strong emphasis on information technology.

It is not clear, yet, that the performance metrics in use and planned by DOE and its contractors will provide adequate leading indicators of safety problems. It will be interesting to learn more about how DOE has developed and validated its performance metrics and how DOE will monitor its new programs to detect problems and deviations from expectations soon enough to take action before other alternatives, such as Headquarters level technical safety assessments, are precluded.

The ability to highlight negative trends and safety problems should not be the only measure of the adequacy of a safety system. A complete and robust safety oversight system should also identify proper root causes, establish effective corrective action plans, verify that the plans are executed, and ensure that the fundamental problems are corrected.

It will be useful to learn more about how DOE and its contractors will judge the adequacy of this part of their system.

The last question I raised at the September meeting was: what are the minimum levels of federal and contractor oversight that should be maintained?

One of the potential problems of DOE's reorganization is that local field elements may not have an adequate number of appropriately skilled and educated personnel to perform the oversight responsibilities that will be assigned to them.

Finally, it appears that DOE Headquarters-level line management oversight is being reduced, if not outright eliminated in some cases. The concern here is that senior DOE line managers may not have a separate source of data on safety issues to help them form conclusions.

Independent information is necessary to allow senior managers to hold their subordinates accountable for their decisions. Over-reliance on a common data source, that is in this case field level assessments, could possibly lead to a common mode failure at the organizational level.

It will be useful to hear today how DOE's

planned oversight model will address this issue. That concludes my remarks this morning subject to any questions from the Board.

I look forward to hearing from the representatives of the Department.

CHAIRMAN CONWAY: Mr. McSlarrow, welcome.

MR. McSLARROW: Thank you, Mr. Chairman. Mr. Chairman, Members of the Board, I appreciate having the opportunity to address you today. In my role, as the Deputy Secretary of Energy, I serve as the Department's Chief Operating Officer, and I have responsibility for providing direction to all DOE organizations, including NNSA.

The subject of today's event, safety oversight, is a critical component of the Department's management system. The Secretary and I take our responsibility to ensure the Department's missions are performed safely very seriously. And the Secretary has made this clear from his first year in office.

Just to give you one example, the Secretary's stated remarks at the 2001 Executive Safety Conference, and I quote: "I want to speak about safety, because nothing is more important. If we do this well, everything else will fall into place. If we fail, nothing else we can do can make up for