

SAFETY MANAGEMENT (95-2)

COMMENTS PREPARED FOR PRESENTATION AT THE DEPARTMENT OF ENERGY 95-2 LESSONS LEARNED WORKSHOP DENVER, COLORADO

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Note: The views expressed here are those of the author and do not necessarily represent the views of the Board as a whole.

SAFETY MANAGEMENT (95-2) LESSONS LEARNED WORKSHOP

I am under the impression that the audience assembled here today consists of a combination of those familiar with the Defense Nuclear Facilities Safety Board's (Board) Recommendation 95-2 and the activities under way to satisfy the Department of Energy's (DOE'S) implementation plan and others who are not. I was asked by Mr. Frank McCoy to provide you with a bit of the Board's perspective with respect to 95-2 and the status of implementation as we see it.

Let me begin by highlighting a few key concepts that are basic to understanding where the Board is coming from and where we would like to see DOE go.

1. Board's Legislative Mandate(1)

- Among the functions assigned the Board in its enabling legislation is the requirement that:

"The Board shall review and evaluate the content and implementation of the standards relating to the design, construction, operation, and decommissioning of defense nuclear facilities of the Department of Energy (including all applicable Department of Energy orders, regulations, and requirements) at each Department of Energy defense nuclear facility. The Board shall recommend to the Secretary of Energy those specific measures that should be adopted to ensure that public health and safety are adequately protected. . . ."

2. Standards-Based Safety Management

Since its establishment eight years ago, two Secretaries of Energy have committed the DOE to a standards-based safety management program. The Board's review of both the standards and their implementation showed the need for considerable improvement, particularly the translation of contractually required safety practices defined in the DOE Order system to the development and implementation of operational safety controls at the work site.

3. Safety Management by Parts

Elements of DOE's safety management program have been developed over the years. They have been developed largely as parts; e.g., Radiological Protection, Fire Protection, Safety Analysis Reports, Conduct of Operation, etc. Moreover, radiological considerations have dominated the safety focus, particularly those aspects involving safety of the public. Safety of the public, the workers, and the environment have been the focus of different administrative regimes within DOE. A decoupling of work planning and safety planning too often occurred.

4. Program Instability

DOE's Safety program historically has not been marked by constancy in direction and approach over the years as key administrators and upper management staff have changed. This situation has been exacerbated by fairly rapid changes in the mission of DOE in recent years that has dramatically changed the nature of the work to be performed. Congressional mandates to require generally applicable requirements to be established by Rule has forced a restructuring of the standards base that has been in place, contributing to the difficulty of developing integrated safety management programs for facilities and activities that are widely diverse in hazards and operational lifetimes.

The Board by its Recommendation 95-2 advised DOE of a number of actions that should be taken to address these perceived shortcomings.(2) More explicitly, the Board recommended that DOE:

1. Institutionalize the process of incorporating into the planning and execution of every major defense nuclear activity involving hazardous materials those controls necessary to ensure that environment, safety and health objectives are achieved.
2. Require the conduct of all operations and activities within the defense nuclear complex or the former defense nuclear complex that involve radioactive and other substantially hazardous materials to be subject to Safety Management Plans that are graded according to the risk associated with the activity. The Safety Management Plans and the operations should be structured on the lines discussed in the referenced documents DNFSB/TECH- 5(4) and DNFSB/TECH 6(5).
3. Establish a new list of facilities and activities prioritized on lines of hazard and importance to defense and cleanup programs, to focus the transition from implementation programs related to 90-2 and 92-5 to this revised development of S/RIDs and associated Safety Management Plans, following the process of Section I of DNFSB/TECH-6.
4. Promulgate requirements and associated instructions (Orders/standards) which provide direction and guidance for this process including responsibilities for carrying it out. The manner of establishing

responsibilities and authorities as currently set forth in DOE Order 5480.31 (425.1) for Operational Readiness Reviews should serve as a model for preparing, reviewing, and approving the Safety Management Programs. The requirement for conformance should be made a contract term.

5. Take such measures as are required to ensure that DOE itself has or acquires the technical expertise to effectively implement the streamlined process recommended.

As you have heard, this meeting will be devoted to a status report on the action plan(3) developed by DOE in response to the Board's recommendation. The Board is briefed regularly by Mr. McCoy and the 95-2 response teams, both DOE and contractors. The Board provided DOE, by letter dated October 2, 1996, a commentary on the progress reported to us on the projects of current focus. These observations will be shared with you later in this program. For now, let me share with you some of my own general perspectives about this effort:

1. The concept of Integrated Safety Management has been widely accepted by the current leadership of DOE and its operating contractors. This is evidenced by the policy statement P 450.4 recently issued by the Secretary of Energy and the response the Board has seen to date from DOE contractors working to reformat and upgrade their programs.
2. It is extremely important to maintain momentum on the efforts underway and not permit the uncertainties that are a part of the political scene during this transition period dissuade us from moving expeditiously forward with what we believe to be fundamentally sound. The Board can be looked upon to remain firm in its action-forcing role to hold new administrators of DOE to the same course committed by Secretary O'Leary(3) with respect to this initiative.
3. It is extremely important to keep ourselves focused upon a shared vision as to where we want to go and not allow ourselves to get hung-up over processes. The establishment of processes will be necessary but there may well be different ways for achieving the end objective. We should clearly define the objective but remain open to differences in the way sites achieve that objective—particularly for the facilities that are 95-2 near-term priority targets.
4. The end objective visualized by the Board in the development of Recommendation 95-2 is a set of controls for every hazardous activity undertaken by or on behalf of DOE. Such controls must provide assurance that the public, the workers, and the environment will be protected. We need to come to common understanding about what we mean by "controls" and how and by whom they are to be developed, implemented, and controlled.
5. I see the need to sharpen our focus in a number of areas. I offer the following for your consideration as you deliberate later in this session on a path forward:

- **The Guidance Manual**

It may be beneficial to develop this guidance by parts and provide at least draft guidance on those aspects considered by the workers in the field to be of most use in the near-term; e.g., (1) A glossary of terms, such as: Controls, Safety Envelope, Authorization Basis, Authorization Agreement, Safety Structures, Systems, and Components and (2) Identification of the existing components of the Hierarchy of Components shown as Figure 1 of DOE P 450.4.

- **Worker Protection Requirements and Practices**

Practices for development and implementation of worker protection controls varies considerable across the DOE complex. DOE expectations with respect to contractor practices for the integration of work planning and safety planning need to be much better established; e.g., (1) the relationships and application of Job Hazard Analysis, Process Hazard Analysis, Radiation Work Permits, Work Clearance Permits, and Enhanced Work Planning in the development of worker protection controls and (2) Contractual implications of noncompliance with the different categories of controls identified.

- **Technical Resources Deployment**

The merits should be considered of establishing some form of resource pool of individuals who could be selectively brought to bear on the review for adequacy of contractors' proposed safety management programs, particularly for major hazardous facilities and activities. The history of DOE's Operational Readiness Review program is illustrative of what should be considered. In the early part of the ORR program, DOE headquarters line management established teams made up of field, headquarters, and outside consultants who performed the reviews. I believe something of this order will be required for DOE review of Safety Management Programs for "high hazard" activities.

- **Standards/Requirements/Controls**

The relationships and links among REQUIREMENTS (Rules, Orders, Industry Standards), contractors IMPLEMENTING PROCEDURES (Codes of Practice, Manuals), CONTROLS (Technical Safety Requirements) need to be clearly established. The Board stressed this point in its Recommendation 94-5. The identification of applicable requirements as defined above, whether site, facility, or activity will not lead readily and consistently to the controls sought without the infrastructure of well-developed manuals of practice established by its contractors for satisfying the requirements.

The Board considers this 95-2 effort to be directed at a central objective of its legislative mandate and will be devoting its resources accordingly.

I am pleased to be a part of this meeting and look forward to the reports and exchanges that will take place.

LIST OF REFERENCES

1. 42 U.S.C. 2286a SEC.312
2. Defense Nuclear Facilities Safety Board letter to The Honorable Hazel R. O'Leary, Secretary of Energy, October 11, 1995.
3. The Secretary of Energy letter to the Honorable John T. Conway, April 1996.
4. DiNunno, Joseph J., *Fundamentals for Understanding Standards-based Safety Management*, DNFSB/TECH-5, Defense Nuclear Facilities Safety Board, Washington, D.C., May 31, 1995.
5. Kouts, Herbert J. C. and Joseph J. DiNunno, *Safety Management and Conduct of Operations at the Department of Energy's Defense Nuclear Facilities*, DNFSB/TECH-6, Defense Nuclear Facilities Safety Board, Washington, D.C., October 6, 1995.