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DEFENSE NUCLEAR FACILITIES SAFETY BOARD



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September 9, 1999

The Honorable David Michaels Assistant Secretary for Environment, Safety and Health Department of Energy 1000 Independence Avenue, SW Washington, DC 20585-0119

Dear Dr. Michaels:

Enclosed for your information is a report prepared by members of the staff of the Defense Nuclear Facilities Safety Board (Board) on the Integrated Safety Management Lessons Learned Workshop, held in Atlanta, Georgia, July 20–21, 1999. Among the observations presented in this report, the Board wishes to call your attention in particular to the comments on the Information Portal initiative. This initiative is part of the action being taken by the Department of Energy in response to the Board's Recommendation 98-1. The initiative has been championed by Richard Kiy, who we understand is leaving to return to private industry. The Board encourages you to move expeditiously to replace Mr. Kiy, or to reassign leadership of this initiative to someone of comparable skills, so that the momentum and pace of this lessons learned initiative does not falter.

If you have any comments or questions on this matter, please do not hesitate to call me.

Sincerely,

Chairman

c: Mr. Mark B. Whitaker, Jr.

Enclosure

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Staff Issue Report

August 3, 1999

MEMORANDUM FOR:	G. W. Cunningham, Technical Director J. K. Fortenberry, Deputy Technical Director
COPIES:	Board Members
FROM:	M. Moury
SUBJECT:	Fifth Integrated Safety Management Lessons Learned Workshop

On July 20–21, 1999, members of the staff of the Defense Nuclear Facilities Safety Board (Board) attended the Fifth Integrated Safety Management Lessons Learned Workshop. More than 250 of the Department of Energy's (DOE) line managers and environment, safety, and health (ES&H) professionals, as well as corresponding principals and line managers from DOE's contractor organizations, were in attendance. The workshop began with a plenary session that included a taped presentation by the Deputy Secretary of Energy and a keynote speech by Board Member Joseph J. DiNunno. The remainder of the workshop consisted of breakout sessions that focused on several key feedback and improvement programs: performance indicators, lessons learned programs, and assessment programs that include corrective action programs. During a panel discussion, senior managers provided their insight on these programs.

Overall, the attendees viewed the workshop as valuable and successful. It provided for a good interchange of ideas and gave people from throughout the DOE complex an opportunity to ask questions related to the implementation of Integrated Safety Management (ISM), focusing on feedback and improvement. The consensus was that feedback and improvement is still the weakest core function; that a major problem is the lack of clear expectations and accountability; and that a properly developed Functions, Responsibilities and Authorities Manual (FRAM) is a key to the success of this function.

Senior Management Perspective on Feedback and Improvement. A group of senior DOE and contractor managers and Mr. DiNunno expounded on feedback and improvement, including the effects of regulatory enforcement on self-reporting. Much emphasis was placed on worker input to the feedback and improvement process. Workers should know that their involvement is expected and their input is valued. This can be accomplished by thanking workers for their input and visibly acting on their suggestions. At least one panel member expressed concern (echoed by some in the audience) that enforcement of the Price Anderson Act would have a chilling effect on self-reporting, and that the act only emphasizes the negative. Other panel members pointed out that rules can set the bounds for activities, and enforcement is a last resort, to be used when other methods have failed.

Performance Indicators. The status of the Secretarial initiative to develop performance indicators for ISM was discussed. The presenter explained the process used for soliciting input from the field (which resulted in a set of about 159 indicators). This set was initially winnowed down to 47, and then to the final 13 that will be proposed to the Secretary. These 13 were considered the most appropriate for ISM because the data were available, repeatable, and not manipulable, and covered all five core functions. The field is currently reviewing this final set of indicators. The Energy Federal Contractor Group (EFCOG) must also have an opportunity for review. DOE staff will then submit the indicators to the Secretary for approval in time for data collection to begin by October 1, 1999. (Data already exist for 7 of the indicators.)

Another session focused on site-specific applications of performance measurement. The speakers provided some valuable observations. For instance, use of data from events results in lagging indicators, while use of data from assessments provides leading indicators; and weak self-assessment programs result in high event-related indicators, but strong self-assessment programs result in low event-related indicators. Examples of reports in varying detail for all levels of management were provided. A speaker from the commercial nuclear sector addressed the idea of building performance measurement on basic principles of human behavior. She reasoned that the purpose of self-assessment and corrective actions is to change human performance to achieve desired results. She defined "success" in terms of setting goals; identifying indicators that would show those goals were being achieved, as well as performance measures that would demonstrate progress toward that end; and identifying the corrective actions needed to fix problems that prevented goals from being achieved. Pay and incentives were linked closely to achieving the goals, and the elements of a work environment conducive to success were identified and provided.

Lessons Learned. In this session, the presenters provided the status of the corporate lessons learned program being developed. The audience raised many questions related to the ability to search all of the lessons learned inputs for all information related to a specific subject. According to the presenter, there is currently no easy way of doing this. However, an attendee from the Institute of Nuclear Power Operations (INPO) stated that their system can do this, and INPO has helped both government and commercial organizations develop their programs. According to the director of the Safety Management Implementation Team (SMIT), efforts are under way to obtain INPO's assistance with lessons learned and performance indicators. Many sites also presented their lessons learned programs. The Idaho system appeared especially promising, and the Board's staff made efforts to ensure that the lessons learned program developers at DOE Headquarters will take advantage of the best each of the sites has to offer.

Assessment Programs. Various breakout sessions dealt with DOE Policy 450.5, *Line Environment, Safety and Health Oversight*. Topics included self-assessment programs, independent assessment programs, and corrective action systems. The Office of Independent Oversight (EH-2) presented its review criteria and the protocols that have been updated in response to the Board's Recommendation 98-1. The audience appeared to be uniformly pleased that the protocols are now more closely aligned with the ISM core functions and guiding principles.

The status of Recommendation 98-1 was briefed. Good progress has been made on this recommendation. However, several comments were made, including one by the Deputy Secretary, about delinquent Corrective Action Plans (CAPs) for legacy issues identified by EH-2. After the workshop, the Board's staff was informed by the SMIT director that all CAPs should be approved by the middle of August.

Environment, Safety and Health Information Portal. In a special breakout session, Richard Kiy, the Principal Deputy Assistant Secretary for Environment, Safety and Health, outlined the goals of the ES&H Information Portal and its potential contributions to effective and efficient feedback on all ES&H matters. The goal is to create a highly efficient system for obtaining feedback from all data sources, convert that feedback into relevant information, and make the information easily available to work managers at all levels in the planning and conduct of work. While the system has not yet achieved this level of sophistication, the potential for accelerating improvement in the feedback and improvement process makes further development worthwhile. However, Mr. Kiy is leaving DOE, and it is not clear who will now champion this effort. The staff is also concerned that without input from line management, the effort will become an information technology initiative and not a tool for managing ES&H knowledge as it was originally envisioned.