



Department of Energy
Washington, DC 20585

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DNF SAFETY BOARD

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W.
Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

Enclosed for your information is a consolidated response from the Department of Energy (DOE) Kirtland Area Office and Sandia National Laboratories (SNL), New Mexico, which addresses concerns raised by your staff in a January 7, 1997, trip report on integrated contractor self-assessments and DOE oversight. Many of the issues identified by your staff were reaffirmed during the DOE Safety Management Evaluation conducted by the DOE Office of Oversight last summer at SNL.

Please contact me if I can be of any further assistance, or have your staff contact Mike Zamorski (KAO) at 505-845-4094 or Kim Loll of my staff at 301-903-3805.

Sincerely,

Robin Staffin
Deputy Assistant Secretary
for Research and Development
Defense Programs

Enclosure

cc:

M. Whitaker w/enc., S-3.1
M. Zamorski, KAO
P. Higgins, OMD, AL





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Department of Energy
Albuquerque Operations Office
Kirtland Area Office
P. O. Box 5400
Albuquerque, New Mexico 87185-5400

DEC 16 1997

Ms. Jan Preston, Staff Member
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW Suite 700
Washington, D. C. 20004

Dear Ms. Preston:

This is the consolidated Department of Energy (DOE) Kirtland Area Office (KAO) and Sandia National Laboratories (SNL) response to the Defense Nuclear Facilities Safety Board (DNFSB a.k.a. "Board") Staff Review of December 10-12, 1996, as detailed in your January 7, 1997 report to the Board. A great deal of activity has occurred since the DNFSB Staff visit and much progress has been made. During the April, 1997 through August, 1997 timeframe, the DOE Headquarters (HQ) Environment, Safety, and Health Office of Oversight (EH) conducted an Integrated Safety Management Evaluation at SNL, DOE Albuquerque Operations Office (AL), and the KAO. As was discussed with you earlier, because of limited staff and the press of the EH evaluation, we were delayed in developing this response for you; your patience is appreciated.

We agree with your observations regarding SNL's feedback and improvement activities as of December, 1996. The report summary describes several areas of weakness, and Section 4 (Discussion/Observations) provides detailed review of these weaknesses. A number of actions to resolve these weaknesses are underway. These are discussed below, with the DNFSB Staff observations from Section 4 restated in italics.

SNL ES&H Self-assessment Program

The SNL ES&H institutional self-assessment program is still in the very early stages of development.

At the time of the DNFSB Staff Review, the Environment, Safety, and Health (ES&H) Oversight Pilot ("Pilot"), established at the direction of Undersecretary Charles Curtis in August, 1995, provided the guidance and direction for self-assessment activities in force. The Pilot has since been terminated by mutual agreement between SNL and the DOE, lessons learned have been developed and discussed, and a number of its activities have been incorporated, under the Feedback and Improvement core function, into the SNL Integrated Safety



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Management System (ISMS). The lessons learned from the Pilot have modified SNL thinking regarding the Oversight Pilot "pyramid" concept of line self-assessment, functional program assessments, and independent assessments confirmed by Facility Representative observations. The SNL collects large amounts of data and increasingly has come to recognize that what is needed is improvement of the interpretation of the available data and development of improved mechanisms to identify and correct cross cutting weaknesses.

The SNL Line Implementation Working Group (LIWG) now consists of both line ES&H Coordinators and ES&H Center customer support managers to more effectively integrate safety with mission activities. This new model still requires development, including coordination of roles and responsibilities between the ES&H Center, Internal Independent Oversight, and Integrated Laboratory Management Systems, but it should lead to an effective process to take advantage of existing self-assessment information in formulating plans for corrective actions and continuous improvement. A draft administrative procedure, *Corporate ES&H Report*, is in development to institutionalize this process. From the perspective of the DOE, it is clear that SNL senior management, as well as many in the line who had maintained that self-assessment processes at SNL were sufficient in their original form, have come to realize those processes' shortcomings and are now pushing for the maturation of new, truly integrated self-assessment mechanisms instead of pushing back against the DOE's insistence for such mechanisms. The three Price Anderson enforcement actions over the past eighteen months played a role in this realization. The recently completed Integrated Safety Management Evaluation by DOE Headquarters/EH noted the lack of a mature, institutional self-assessment program at SNL but also noted that AL, KAO, and SNL recognize most of the identified deficiencies and are moving to address them as part of the ISM initiative.

Adequate DOE teaming in existing SNL ES&H self-assessments is not apparent.

During the course of the Pilot the DOE was constrained in its level of involvement with SNL self-assessment activities. With the termination of the Pilot in April, 1997, KAO and SNL jointly requested an assistance visit by Subject Matter Experts (SMEs) from AL. This visit provided an opportunity for DOE, in conjunction with SNL SMEs, to increase operational awareness of SNL programs and processes through the review of a subset of sixteen SNL functional programs and processes. A secondary objective was to put SMEs from SNL and DOE together into teams with not only the immediate objective of assessing the assigned program or process areas but also of breaking down institutional and interpersonal barriers so as to promote communication and future teaming effectiveness.

The SNL ISMS Implementation Plan commits SNL to a set of scheduled deliverables which are milestones of progress in establishing a functioning safety management system. An ISMS Facilitation Team and a Line Integration Team have been established to manage implementation. The Facilitation Team utilizes joint SNL/KAO/AL Task Teams to complete development of each of four program areas: feedback and improvement, requirements flowdown and tailoring, hazard identification tools, and authorization agreement. The Line Integration Team focuses on ongoing review of ISMS implementation process and problems that have been encountered, with follow up assistance to Divisions in their implementation efforts, based on these lessons learned. These teams typically have been meeting at least biweekly, with active participation from AL and KAO SMEs. This has resulted in more real time DOE feedback on SNL's process designs and decision making within the ISMS framework, which is different from the Oversight Pilot wherein SNL tended to create a design and then presented/defended that design position to DOE. These frequent, more focused interactions have served to better clarify and integrate DOE's requirements and SNL's needs, particularly in the areas of feedback and improvement, though work remains to be done.

A similar process was put in place for the FY97 DOE evaluation of ES&H performance under the multiprogram laboratory appraisal and continues for the FY98 Agreement. Quarterly, the LIWG, Division 7500 SMEs, DOE/KAO, and DOE/AL meet to discuss progress and performance in a number of metric areas, including the metric areas of self-assessment and ISMS implementation. These, along with a number of other "critical few" metric areas, form the core of these meetings and ultimately form the basis for the year end performance appraisal score for SNL. A large part of the input for these discussions and evaluation consists of SNL self-assessment information with validation provided through KAO FR observations, and KAO and AL SME team participation on selected SNL self-assessment activities. The SNL has also been more active in requesting KAO SME assistance and participation, particularly in the area of Radiation Protection and Price Anderson Amendments Act issues, and has been increasingly receptive to DOE FR operational awareness activities. Overall, there has been a significant increase in DOE teaming in SNL self-assessments from that observed by the DNFSB Staff a year ago, and great improvement in the level of DOE/SNL interaction in most ES&H areas.

The SNL "Feedback" program is operating at a very basic level.

Based on the concept of the graded approach, SNL's nuclear facilities have the greatest degree of operational rigor imposed on them. The ES&H issues and lessons learned from Area V are discussed at and disseminated via LIWG. The Division ES&H Coordinators do not automatically pass on all of this information to their line personnel; instead they first screen it for relevance to their division's

specific hazards and activities. This is based on the experience that safety information, including training, is most effective when tailored for the actual work that is being done. While many corporate systems for collecting critical ES&H data are in place, the struggle to weave these into a usable laboratory-wide system meeting the needs of both SNL line and senior management and that of DOE continues and is an important component of ISMS development. The SNL's line organizations are also making improvements in their feedback and improvement programs commensurate with their risks; a Feedback and Improvement Task Team which includes members for both SNL ES&H, line organizations, and from DOE AL and KAO, is working to resolve the issues surrounding feedback and improvement and to suggest processes to facilitate this.

Facility Representatives/Kirtland Area Office Monitoring

There appears to be some resistance within SNL to the FRs' role.

The FR/SNL relationship issue continues to improve. Since December 1996, there has been steadily increasing acceptance of the Facility Representative Program at Sandia National Laboratory. This improvement has come about from increased and improved communication between the FR's, FR Management and Lab Management, the development and issuance of a *Policy on Facility Representative Interactions* that further defines the protocol for insuring DOE's stewardship responsibility and interactions, the development of a KAO/SNL protocol providing for division-specific procedures to define FR access to safety related data such as Preliminary Hazard Screens (PHSs) and self-assessments, and recognition on much of SNL that there is value added to SNL from the presence of DOE FR's.

There was some concern expressed by the Board Staff that KAO FRs are not routinely provided necessary access to internal SNL ES&H assessment results. The KAO is not aware of any specific instances where FRs have been denied access to any requested information. Such access is in fact required by the SNL contract.

There is a lack of staffing/management stability in the FR program.

Stability in management has been achieved through the assignment of a permanent team leader following the reorganization at KAO in May, 1996. Staff size is stable at 10 Full Time Equivalents (FTEs). The last two vacancies will be filled in January, 1998. Since December, 1996, there has been some movement internally, however, personnel in the program in December, 1996, remain in the

program. The expectation is that those personnel will be Phase II qualified during FY98. KAO and AL are still exploring retention options for qualified FR's.

Performance Objectives/Performance Indicators (POs/PIs)

The initial set of objectives and indicators was not sufficiently developed to assure DOE of adequate SNL performance..

As originally envisioned at the start of the Pilot, POs/PIs were to be a leading tool for understanding assessment data, not as the end state of assessments. SNL continues to use a critical few metrics to trend performance, while simultaneously analyzing information derived from their self-assessments to develop specific guidance on making improvements. Nonetheless, since the termination of the Pilot, POs/PIs are no longer used as the stand-alone leading indicators originally envisioned, but remain important as one means of summarizing information. It is both DOE/KAO SME's experience, as well as that of SNL SME's, that general metrics alone rarely provide the insight as to root causes and actions necessary to effect improvements, but that thoughtful analysis by staff with awareness of ES&H performance can develop meaningful lessons learned that can be fed back to improve processes and procedures. Without examination of the details of the data underlying the indicators, little understanding of cause and effect is realized and improvement is not possible. SNL has recognized that they have had difficulties in sharing issues among their organizations as a tool to prevent performance problems. SNL managers understand that sharing lessons learned and issue information is critical in ensuring real improvement. In the fourth quarter of FY97 a new format ES&H Quarterly Report was issued by SNL which included detailed, division-by-division breakdowns on such indicators as various health and safety case rates, environmental releases, radiation exposures, etc. These were listed for several years to display trends.

I appreciate the feedback that you provided in your report of the DNFSB Staff Review. Your insights have given KAO and SNL valuable input for improvement of Integrated Safety Management at this site. If you require additional information, please contact me at (505) 845-4094.

Sincerely,



Michael J. Zamorski
Acting Area Manager

cc:
D. Owen, DNFSB Staff