

**REMARKS**

**BY**

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DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

**ON**

**INTEGRATED SAFETY MANAGEMENT (ISM)**

**IMPLEMENTATION**

**FOURTH ISM WORKSHOP**

**OCTOBER 20-22, 1998**

**RADISSON HOTEL, NEW ORLEANS, LOUISIANA**

I am glad to be once again amongst all of you who are working to make the vision of Integrated Safety Management a reality. Significant progress has been made during this past year, but we have a substantial way yet to go before this upgraded framework for performing hazardous work is well in place.

As I have done before, let me share some observations with you about where I perceive we are and where we need to go.

First and foremost, let us all keep focused upon our goal which is to foster and implement safety management practices that will ensure protection of the public, workers, and the environment as the Department of Energy's (DOE's) missions are accomplished; or in plain English, *Do Work Safely*.

Secondly, let us strive to facilitate work, not hamper it.

A friend sent me an article a few months ago that included the following:

The propagation of a practice must help people achieve specific goals and must never become an end to itself.

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I believe we need to keep this thought constantly in mind as we continue to move forward with implementation of integrated safety management.

The Defense Nuclear Facilities Safety Board (Board) has maintained constant pressure on DOE throughout the year on implementation of integrated safety management. Also, as you know, Deputy Secretary Elizabeth Moler opened the ISM workshop session last year by stressing the importance the Office of the Secretary placed on the successful implementation of this safety management concept and has continued her personal interest and involvement in its complex-wide adoption. In spite of pronouncements and policy statement by DOE leadership, there appear to be some pockets of skepticism and foot-dragging. To those who question or doubt, let me say simply, *get on board*.

Three Secretaries of Energy in succession have committed DOE to integrated safety management. This commitment is evident by:

- Policy Statement P450.4 on integrated safety management
- Department of Energy acquisition Regulation on ISM (DEAR 48 CFR 970.5204-2 and 5204-78)
- Continued attention of the Office of the Secretary, all Program Secretarial Officers and all Field Managers to progress being made in implementation.

Top level emphasis on enhanced safety management is absolutely necessary for success but is not sufficient. Line managers at all levels who are responsible for performing the work, both contractor and federal workforce, must be convinced of the merits of change and a restructuring of existing practices. The most effective ISM programs are at facilities where the facility line management has played an active role in its implementation. ES&H professionals are very important to providing support in this endeavor and ensuring consistency across the site but the line managers are key to its success and must maintain primary responsibility for ISM implementation.

The Board, during the past year, has continued to give considerable attention to implementation of Integrated Safety Management. Quarterly status reviews have been held as sessions open to the public. Transcripts are made of such sessions. These are available by Internet access to the Board's home page. The Board's staff has observed various verification reviews DOE performed this past year. The Board has been briefed also by DOE verification team leaders. Implementation progress, or lack thereof, remains high on the Board's attention list.

In December 1997, the Board acted via a reporting requirement, to encourage DOE to enlarge its attention from the ten priority facilities identified in Recommendation 95-2 DOE implementation plan to a larger set of defense nuclear facilities. The objective was to determine with DOE the existing safety management framework for all defense nuclear facilities, to identify upgrades, if any, to satisfy ISM principles and functions, and to structure a plan for going forward. The Board's staff assessment of the information received in response to the Board's December 23, 1997, letter was presented to the Board at its seventh quarterly public status review on June 24, 1998. The staff also presented site-by-site assessment at the Board's eighth quarterly meeting on September 22, 1998, which is also available in the transcript of the session. In summary, what this survey showed was that in general, more progress has been made in upgrading safety management programs for individual priority facilities than in modifying the site-wide infrastructure of requirements, manuals and procedures, and the site-wide infrastructure is progressing ahead of implementation by the follow-on facilities. This was neither surprising nor disturbing. In fact, it reflects the priority the Board has encouraged. Particularly noteworthy, 38 authorization agreements have been mutually agreed-upon by DOE and contractors. If the pace of the program, as indicated by the sites, is successfully maintained, Authorization Agreements for all Hazard Category 1 & 2 operational defense nuclear facilities and much of the ISM infrastructure will be in place by the end of next year. Although this projection may be optimistic, it is a goal that must be aggressively pursued.

In March 1998, the Board acting via another reporting requirement caused DOE to assess as a whole, its feedback and improvement program. About 30 different DOE directives deal with the feedback and improvement program. This topic, including DOE's action plan, was also on the agenda for the eighth quarterly public meeting on Recommendation 95-2 status (September 22, 1998). The Board subsequently commended DOE for the improvement actions initiated but observed that they were all line management oriented. The feedback and improvement role of

DOE's independent, internal group, EH-2, was not addressed. The Board believed it should be and several weeks ago (September 28, 1998) recommended to DOE a course of action to address the independent assessment program (Recommendation 98-1). In effect what the Board has recommended is an arrangement that will ensure a line response to EH-2 observations and findings and an institutionalized protocol for resolving matters in dispute, involving the Office of the Secretary when necessary.

Along somewhat different lines, but also ISM oriented, the Board issued this month its Recommendation 98-2. This recommendation deals with the process for ensuring safety when nuclear materials and conventional high explosives are in proximity. This is the first of the Board's recommendations requiring classification for security reasons.

Progress, notwithstanding, there is much yet to be done if the principles and requisite functions of ISM are to be satisfied. Before I discuss specific areas that, in my view, merit added attention let me also state that as implementation progresses in a process that by its nature is very paper oriented it is important not to lose sight of what we are trying to do. We must not forget that a strong safety culture is key if we are to reap the full benefit of integrated safety management. The International Nuclear Safety Advisory Group stated in 1991 and it is fully applicable here, that there is a “. . . requirement to go beyond the strict implementation of good practices so that all duties important to safety are carried out correctly, with alertness, due thought and full knowledge, sound judgement and a proper sense of accountability.” The establishment of the infrastructure of integrated safety management will go far to improve safety in DOE but let us not lose site of the human element that is so critical to doing work safely. We must continue to work on the mind-set of people at all levels to establish firmly that “doing work safely” is the only acceptable norm.

As you proceed with this workshop, I offer you the following, that in my view, merit special attention:

1. Requirements Identification.

Some contractors have elected the Work Smart Standards process for identifying the requirements they believe applicable others are using alternate processes. (The Board has consistently focused on the adequacy of the requirements set, not the selection process.) This requirements set is important because it is the framework for the sites infrastructure of safety management practices. The task of tailoring requirements to the hazards of the work and getting agreement of DOE on adequacy of the set appear to be of more difficulty for some sites than others. It is also important that once the set of requirement is established that it be subject to a change control process, and also that the requirements flow down into implementing procedures. A sharing of experiences by those who have successfully completed this task with those who still have it before them could be a very useful outcome of this workshop.

2. Work Planning/Safety Planning at the Activity/Task Levels.

Work Planning, including development of the requisite safety controls and the assignment of resources, trained and capable of performing the work, are primarily the responsibility delegated by DOE to its contractors. Yet DOE must share in consequences of failures of its contractors to so perform. Hence, DOE must better define its expectations of its contractors in this area and the oversight the federal work force will perform. How to achieve some semblance of uniformity at sites with multiple contractors and flow-down to subcontractors are special challenges.

3. Technical Qualifications.

Qualification commensurate with safety responsibilities is one of the fundamental principles underpinning ISM. The Board and DOE's Federal Capability Panel chaired by Steve Richardson of the Oak Ridge Operations Office continue to work this issue. The focus of the Federal Capability Panel is the senior career, safety management structure of DOE. While important, this initiative is not enough. Since so much of the success of safely managing the hazardous work of DOE is dependent upon contractors, the question of competence and capabilities of contractor staffs must be kept high on DOE's contractor selection and performance assessment criteria. In particular, the contractor's engineering and ES&H staff that do work planning, including work package development at the task levels, are crucial to effective integrated safety management.

4. Lessons Learned.

Implementation is progressing but it could move faster with better sharing of lessons learned. We continue to see the same mistakes and issues coming up at different sites and during different verification reviews; this weakness is slowing implementation down. This workshop is an excellent opportunity to share lessons learned but it is only once a year. I encourage you to use the Safety Management Implementation Team, use their homepage, and any other method to share lessons learned. Squeeze every bit of information you can out of what the other is doing. Do not just share what works, share what does not work. Sometimes that information is more enlightening. Remember, they are only lessons to be learned until you have actually learned something from them.

5. Nuclear and Non-Nuclear Safety.

There is still evidence of ISM being perceived as mostly a nuclear safety management initiative. It is really much more than that and should be treated as such. Effective work planning should reflect consideration of all hazards the work entails, not just the radioactive implications. In this age of specialization, it is

difficult to bring specialists to bear in a coordinated way, but integrated safety management requires just that.

I have noted that there is a Wednesday morning breakout session on the use of the Chemical Manufacturers Association (CMA) Management Systems Verification (MSV) program for evaluation of chemical safety management programs. The CMA's Process Safety Code of Practices for Chemicals is very consistent with ISM for nuclear materials.

6. Authorization Agreements.

Although a considerable number of such agreements have been signed, there still appears to be some uncertainty about contents and a reluctance to firm up contract-binding commitments. Both of these aspects might benefit from an exchange on this subject by workshop participants.

7. Design, Construction, Operation, Decommissioning.

By far the attention to implementation of ISM has focused on operational facilities. The application of ISM principles and functions are applicable at all life cycle phases of facilities and processes used for hazardous work. More attention and dialogue should be given to the implementation of ISM for projects in design, construction and decommissioning. We want to avoid practices of the past that gave cause to the extensive remediation efforts of today.

In summary, let me commend those of you who have contributed to the progress to date. Our common goal is a safety management program that fosters the successful accomplishment of DOE's objective—to accomplish its missions safely. To meet that objective, I urge all of you to share your experiences with one another and to move forward expeditiously with resolve and vigor.

# **INTEGRATED SAFETY MANAGEMENT (ISM)**

## **IMPLEMENTATION**

**Joseph DiNunno**  
**Member**  
**Defense Nuclear Facilities Safety Board**



**Fourth ISM Workshop**  
**October 20-22, 1998**  
**Radisson Hotel, New Orleans, Louisiana**

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**International Nuclear Safety Advisory Group,  
Safety Culture, 1991**

**We must work on the mind set of people at all levels to establish firmly that “doing work safely” is the only acceptable norm.**

**Joseph DiNunno - Member, Defense Nuclear  
Safety Board, 1998**

# **Integrated Safety Management (ISM)**

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- **Requirement (List A/B) Identification**
- **Work Planning/Safety Planning of the Activity/Task Levels**
- **Technical Qualifications**
- **Lessons Learned**
- **Nuclear and Non-Nuclear Safety**
- **Authorization Agreements**
- **Design, Construction, Operation, Decommissioning**