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HOTLINE

The Princeton Plasma Physics Laboratory is a United States Department of Energy Facility

Safety Comes First at PPPL

On June 21, a DOE team led by John Adachi of DOE-Chicago is scheduled to arrive at PPPL for a review of the Lab's Integrated Safety Management (ISM) system. Below, Environment, Safety & Health and Infrastructure Support Head J.W. Anderson discusses ISM and its importance at PPPL.

Question:
What is Integrated Safety Management (ISM)?

J.W. Anderson:
ISM is a common sense approach to doing work safely. It reflects an effort by the Department of Energy (DOE) and its Laboratories to take the "next step" in the manner in which the Laboratories are operated. It identifies a set of *values* and *principles* that we should always expect of ourselves as we carry out our day-to-day activities in the safest way possible. It makes a lot of sense — it is as much about *"culture"* as it is about safety. In most cases, it reinforces the good work practices that we have developed over the years. The ultimate goal is that managing the safety aspects of our jobs will become so routine that it should almost become transparent. It's also important to emphasize that the term "safety" includes health, environmental compliance, and pollution prevention issues.

Question:
Why is ISM important at PPPL?

J.W. Anderson:
We have an obligation to our co-workers, our neighbors, and our families to operate PPPL in the safest manner possible. The ISM program offers guidance for workers, supervisors, and managers for doing this. It is also one of the criteria by which our client, the DOE, will be judging our ability to operate the Laboratory.

Question:
Whose responsibility is ISM?

J.W. Anderson:
Every one of us has responsibility for working safely and following the established policies and procedures. Line management, from workers right to the Director, is directly responsible for the protection of the public, the workers, and the environment. To support line workers, the Environment, Safety & Health (ES&H) and Infrastructure Support Department provides safety policy, enforcement, and independent oversight functions.

J.W. Anderson

Question:
I work at a desk job, why should I worry about ISM?

J.W. Anderson:
There are some real benefits to be gained by applying ISM to **any** job. Most people already apply ISM principles and functions to their work here, at other Laboratories, and even at home. For example, when you ordered your desktop computer you also bought a wrist support pad, a UL approved surge protector, and an anti-glare screen. You might also have an ergonomic chair. Although the hazards you are protecting against are potentially less obvious than those for an electrician working on high-voltage equipment, the same ISM functions can be applied. When you considered how much time you spend working on the computer, you may have identified the potential hazards — eyestrain, back and neck strain, carpal tunnel syndrome, electrical surges, and tripping on cords. Then you ordered the wrist pad, surge protector,

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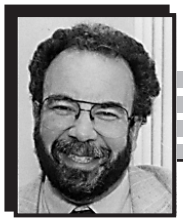

Rob's Notes...

Our Commitment to Integrated Safety Management

Over the years we have achieved an excellent track record in environment, safety, and health performance. This is because it is an integral part of PPPL's culture — it is embodied in everything that we do. Integrated Safety Management provides a clear framework for incorporating safety into the management and performance of all Laboratory work activities. It strongly reinforces our policy that the responsibility for environment, safety, and health resides with line management and each individual. We are committed to the principles, functions, and controls of ISM and we will continually apply the principles of integrated safety management as we fulfill our responsibilities and commitments to each other, the University, the Department of Energy, and the public.

— Robert J. Goldston
PPPL Director

The DOE Integrated Safety Management Review Team came to the Laboratory for a pre-visit in May. At left, PPPL Director Rob Goldston (standing) gives an overview of the Laboratory and discusses the Lab's commitment to ISM with members of the team. At right, Lab and DOE officials talk with members of the review team during the pre-visit. The team of eight DOE reviewers are scheduled to arrive at PPPL for the actual review on Monday, June 21. The review will begin the following day and is expected to be completed by June 30. Most of the site observations and interviews will be conducted between June 22 and 25.

HOTLINE

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ISM

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and other items to reduce or "control" the risk posed by those hazards.

In the jargon of ISM, you: (1) *defined your work*, (2) *analyzed the hazards*, and (3) *developed controls* for those hazards. Now you work on your computer using those "hazard controls." If the equipment is working well, you might share that information with co-workers who have similar jobs. In ISM terms you would (4) perform *work within controls* and (5) *provide feedback.*

ISM is not something new, it just helps us to consistently apply some common-sense practices to our work. Those five steps you performed are called the ISM "Core Functions."

Question:
Shouldn't ISM be the concern and responsibility of managers?

J.W. Anderson:
Integrating safe work practices into our everyday work is *everyone's* responsibility. We expect our managers and supervisors to lead by example and communicate expectations for safe work practices. This is consistent with the first "Principle" of ISM — Line Management Responsibility for Safety. Line managers play a key role in assuring that the ISM Principles are applied to work activities. These principles include making sure workers have the proper training, responsibilities for different tasks are clear, safety issues are appropriately addressed in schedules and budgets, safety standards are identified for their jobs, and everyone is prepared before authorizing work to begin.

Question:
What is the Lab's approach to ISM?

J.W. Anderson:
The main objective of ISM is to "do work safely." We are finding that the ISM policy and guidance is helping us to improve this record even more while maintaining an appropriate balance of safety, cost, and schedule. Through the years, we have developed a solid foundation of safe work practices.The ISM effort helps us to reinforce these practices.

Our general approach has been to "tune-up" our ES&H Directives, procedures, and work planning, and to emphasize the principles and functions of ISM. We've had more than a dozen small-group meetings with more than 450 people attending to discuss PPPL's approach to the ISM Program.

Question:
How has our safety track record been at PPPL?

J.W. Anderson:
Our safety record has been improving through the years and consistently has been among the best within the DOE system of Laboratories. The number of injuries, lost workdays, and accidents is below the DOE average and our environmental and radiological records are also excellent. This performance track record means a lot to PPPL. In fact, during 1998, PPPL's performance was at such a level that we received *two* New Jersey Governor's Occupational Safety & Health Awards. The Laboratory, as a whole, received the State "Recognition" Award and the NSTX Project received the "Departmental Group" Award. These are significant accomplishments that we can attribute to the performance of all members of our staff.

Question:
What are we doing about ISM?

J.W. Anderson:
In addition to updating our procedures and ES&H Directives, and providing ISM training, we just completed ISM self-assessments for several projects, including NSTX, and work activities such as radiation protection. These self-assessments identified many strengths in our program, but also pointed out some areas where we can make further improvements. One thing we want to reinvigorate is our training program, so that staff members can maintain and increase their skills and qualifications. Investment in employees typically benefits management, workers, and the institution.

Question:
How has ISM been applied at PPPL?

J.W. Anderson:
During the past twelve months, there have been many examples. The NSTX project team and support groups followed ISM principles during the construction and initial start-up of the experiment. The Current Drive Experiment-Upgrade and Hall Thruster experiments used the ISM program, from upgrades to construction to operation. In addition, the principles were applied to a construction job performed by a subcontractor installing several hundred feet of underground water lines. In all these cases, the ISM approach helped to complete these jobs safely and successfully. ●

Integrated Safety Management

Facility Managers Assigned to Assist with Safety Performance

Selected representatives from the Environment, Safety & Health (ES&H) and Infrastructure Support Department and from the Engineering and Technical Infrastructure Department have been designated as Facility Managers to facilitate ES&H performance. Every geographical area of the Laboratory has a Facility Manager, who is responsible for maintaining an awareness of ES&H issues within their assigned areas, but is not intended to replace line management's accountability for ES&H issues. The list of Facility Managers for each Lab area is available from the PPPL Employee Services Web page or at URL http://www-local.pppl.gov/pppl/services/support_services/dept_office/FMs.html. ●