Integrated Safety Management Awareness Training

Define Work

Feedback & Improvement

Analyze Hazards

Perform Work

Develop Controls
OUTLINE

• UNDERSTAND
  – What ISM/ISMS means
  – What the DOE Inspectors will be looking at
  – The few, key concepts we may be tested on
  – JLab ISM resources
What is Integrated Safety Management?

• DOE safety program – requires safety and environmental protection is “planned in” to every activity

• DOE standard since 1995
  • JLab “grandfathered” into program during initial startup review
  • JLab and Site Office ISM assessment required annually
  • Expect 3-4 year DOE HQ assessment cycle
How is ISM Implemented at JLab?
What are the 5 ISM Core Functions?

• These five core safety management functions provide the necessary structure for the conduct of any work activity

1. Define the Scope of Work
2. Analyze the Hazards
3. Develop and Implement Hazard Controls
4. Perform Work Within Controls
5. Provide Feedback and Continuous Improvement

• WHY IS THIS SO IMPORTANT? – DOE assesses the “health” of a program by looking for proof of these 5 functions
CF#1 Define the Scope of Work

- Identify the nature of the required work
- Identify the schedule
- Determine the cost
- Review associated lessons learned
- Workers always involved in work planning
How Do We Define the Scope of Work?

• Current Processes
  – Experimental review processes and schedule
  – Electronic work planning tools (ATLis, FEList, TATLs, Hall Lists)
  – Plan of the day, week meetings
  – Job walk downs
  – Subcontractor work orders, contract specifications

• Future Upgrades
  – Clarify and communicate use of work planning tools (ATLis, FEList, etc.) and create active links
  – Provide a search function to identify relevant LL during Scope of Work development
CF#2 Identify and Analyze the Hazards

- Identify work related hazards
- Analyze identified hazards
How Do We Identify and Analyze the Hazards?

• Current Processes
  – FSAD/ASE
  – Experiment safety approval document
  – Electronic work planning tool Task Hazard Analysis
  – ES&H 3210 – Hazard ID and Characterization
  – Workspace and equipment specific training

• Future Upgrades
  – Clarify the entire work planning process
  – Clarify when an informal vs. formal THA must be conducted
  – Communicate and train on hazard ID and analysis process in ES&H Manual
  – Improve ITP process to capture all training
CF#3 Develop and Implement Hazard Controls

- Select/design engineering & administrative controls
- Select/design pollution prevention/waste minimization controls
- Identify appropriate personal protective equipment
- Apply associated lessons learned into controls
- Implement controls
How Do We Develop and Implement Controls?

• Current Processes
  – Accelerator/FEL Ops Directive
  – Conduct of Operations Documents
  – Experimental Readiness Review
  – SOPs, OSPs, TOSPs
  – Subcontractor Safety Plan
  – Pre-job walk downs
  – User training

• Future Upgrades
  – Assure that existing procedures are current
  – Assure that all training requirements are being tracked in ITPs
  – Make searching for lessons learned during control planning easier
CF#4 Perform Work Within Controls

• Obtain authorization
• Ensure personnel have appropriate qualifications/training as identified in work control documents
• Conduct pre-job briefing
• Perform work and follow controls as identified in the appropriate work control document
How Do We Perform Work Within Controls?

**Current Processes**
- Electronic work planning tool authorization
- Shift plan approval
- Experimental readiness approval
- Daily, pre-job meetings
- Work Orders
- Training & Certification Requirements

**Future Upgrades**
- Improve tracking of staffs’ qualifications (Qual Cards)
- Clarify when/how authorization needs to be formal and documented
- Assure current documents reflect accurate controls
- Improve work space postings
CF#5 Feedback and Continuous Improvement

• Conduct post job reviews (worker feedback)
• Collect and distribute lessons learned
• Conduct independent, management, and self-assessments
How Do We Solicit Feedback and Assure Continuous Improvement?

• Current Processes
  – Safety Wardens
  – Workers Safety Committee
  – Daily, post job meetings
  – Lessons Learned Database
  – Corrective Action Tracking System
  – E-logs
  – Routine procedure review

• Future Upgrades
  – Improve understanding of existing LL systems
  – Document and review lessons learned in electronic work planning tools
  – Establish LL Coordinators in each Division
  – Share LL between orgs.
  – Assure that all feedback is acknowledged
ISM Resources

- Website
  - ISM basics, jargon, Tip of the Day, example inspection questions & answers
- ISM Program Description
- JLab Safety Toolbox
- Core Function Team Members
- Workers Safety Committee
- Managers and Supervisors
- Daily Planning Meetings
- ISM@jlab.org
JLab ISM Weaknesses

• General knowledge of concepts and terms
  – Website
  – Training
  – Safety Toolbox

• Uneven application of work planning & control process (THA process, work package development, skill of craft evaluation)
JLab ISM Weaknesses

• Feedback & Continuous Improvement
  – Need better processes for collecting, analyzing and sharing lessons learned (enter LL into electronic work planning tools, establish LL Coordinators in each Division, share LL between organizations)

• Work Control Documents
  – Inconsistent format, content and control
What Does This Mean to Me?

• The inspectors will be walking the floors for 2 weeks talking to staff and users
• We will escort each HSS team member and communicate issues as they arise
• You are not expected to stop activities immediately to interact with an inspector
• You are not expected to know everything about ISM or how work is planned and executed outside your organization
  – OK to say “I don’t know” or “I don’t understand the ?”
  – OK to say “that’s not within my job responsibilities”
  – OK to say “lets go talk to my supervisor”
Answering Inspector’s Questions

• Be honest, open, and professional
  – Answer their questions if possible
  – OK to use tools to answer questions (Safety Toolbox, ISM Cards, posters)
  – OK to ask them to restate a question if it’s unclear

• Questions will likely be focused on:
  – Are you trained & qualified to do this task?
  – Are you authorized to do this task?
  – What procedures are you following?
Example Q&A

Q: Are work efforts always described in some sort of work package, procedure or permit?
A: Other than the most simple tasks, yes. Routine tasks may be described in an electronic log entry and it can get as detailed as an experimental plan or a subcontractor specification.

Q: If you had a question or concern about safety or environmental protection during a work planning activity how would you raise the issue?
A: I would raise the issue with my supervisor. If the question is not resolved, I would continue to raise it through the JSA organization, all the way to DOE. (ES&H Manual Chapter 2310)

Q: What type of documents are provided to you that outline your jobs’ hazards and control?
A: Depending upon the risk code assigned, various documents are developed including a Task Hazard Analysis checklist, a SOP, OSP, TOSP and/or a temporary work permit. The procedures for making these decisions are contained in the ES&H Manual.
Example Q&A

Q: Do your hazard controls ever include specialized training? If so, how is this implemented?
A: Sometimes. This would be called out in the Task Hazard Analysis or as a note associated with the activity authorization record.

Q: Are the results of the lessons learned reviewed by management?
A: Yes, in fact we have a new procedure that governs how this system works. Both internal and external lessons learned are collected and shared throughout the lab.

More Q&A can be found on the ISM Website
Summary

– What ISM/ISMS means
  • ISM is a philosophy on how to best integrate ESH&Q into work
  • ISMS consists of the policies, procedures, and mechanisms that make it happen

– What the DOE Inspectors will be looking at
  • How the 5 core functions are implemented during all work activities

– The few, key concepts we may be tested on
  • How we plan work and control hazards
  • How we know we are qualified & authorized to do a task
  • How we collect, share and use LL for improvement
  • How we identify, track and correct issues
Key Dates

1 May – Program Material Due to HSS
19-23 May – Initial HSS Visit
2-13 June -  HSS Inspection
8-10 July – Follow-up Visit