

DOE ES&H Review in June 2009

What It's About & Some Preparation Tips



... for a brighter future



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Another Review?

- Unfortunately, yes, another review
- Periodic reviews are a necessary feature of a good internal assessment program
- DOE Office of Health, Safety & Security (HSS) is an internal independent oversight organization responsible for conducting reviews
 - Was created under the previous administration by combining several DOE organizations with similar functions into one organization
- These reviews are being conducted every 3-4 years
 - DOE Office of Independent Oversight and Performance Assurance (DOE OA – now part of HSS) previously reviewed Argonne in 2002 and 2005
 - Argonne is scheduled for the next review in June 2009

What Will Be Reviewed?

- The review will look at how the ISM 5 Core Functions are being met by Argonne

- Typically several site organizations are chosen for detailed review of those organizations' activities
 - APS and PFS (now FMS) were chosen for the April-May 2005 OA review
 - APS was in a maintenance period and scheduled maintenance activities were the main focus

- In addition several specific topics are chosen for a site wide review
 - The April-May 2005 OA review included the following Argonne programs:
 - *Hoisting & rigging*
 - *Chronic beryllium disease prevention*
 - *Corrective action management*

Lawrence Berkeley National Laboratory (LBNL) Recent Experience

- HSS reviewed LBNL in February 2009

- Review included research and development and facility activities at:
 - Advanced Light Source (ALS)
 - Chemical Science Division
 - Physical Bioscience Division
 - Life Sciences Division

- Also included construction and maintenance activities performed by the LBNL Facilities Division

- Topics reviewed included:
 - Chemical management
 - Waste management
 - Injury & illness reporting
 - Communication of worker's rights
 - Feedback & improvement processes

ALS Experience

- One person assigned to review activities
 - Same person was involved with APS review in 2005
- Observed work activities involving:
 - Outage work (work conducted during equivalent to APS machine studies)
 - Accelerator operations
 - Experimental activities at the beamlines
 - Chemical laboratory work
 - Machine shop work
- Walked down chemical labs, shops, material storage areas, and waste storage areas
- Witnessed ALS user training

Concerns from ALS Portion of Review

- Job hazard analyses were too broadly conducted to fully analyze all hazards present and to implement controls
 - Witnessed work conducted within a few feet of a drop off greater than 6 feet and there were no hand rails or fall protection for workers

- Did not perform a baseline survey or exposure assessment for lead in peeling paint

- Did not identify environmental hazards with using lead containing solder
 - Was being disposed of as regular waste rather than hazardous waste

- Noted minor noncompliances with hazard controls
 - Weren't tracking amounts of flammable gases being used at the beamlines even though there is a limit specified in the ALS SAD

What About This Review?

- APS again will be a “chosen one” – too big of an operation to be not included

- Best guess is HSS also will be reviewing:
 - Facilities Management & Services (FMS), especially the nuclear operations portion
 - Waste Management Operations (WMO)
 - One or more programmatic R&D organizations

- Emergency Management Program will be a special topic

- Other topic areas most likely will be:
 - Hazardous waste management
 - Chemical management implementation
 - Safety component procurement inspection activities
 - Feedback and continuous improvement

What Will Be Reviewed at APS?

- What will be reviewed is what is going on while APS is operating during the main review in early June

- There likely will be two team members assigned to review work planning & control aspects of:
 - Accelerator operations (running the accelerator)
 - Beamline operations
 - Beamline experiments
 - LOM laboratory use
 - LOM machine shop use

- Reviews will consists of:
 - Collecting and reading documents, including specific task procedures
 - Interviewing individuals
 - Witnessing work activities

Simple Stuff to Do for Preparation

- Clean up beamline and laboratory areas
 - Keep all egress aisles open
 - Properly store flammables, chemicals, gas cylinders, and sharps
 - Check if chemicals are being stored in fume hoods and remove unless in use
 - Don't have food and drink on same surface as squeeze bottles, spray cans, or chemical containers
 - Keep areas in front of electrical panels clear of obstructions, even trash cans

- Label *ALL* chemical containers with contents or an ID that can be matched with contents - include hazard warnings where appropriate
 - Squeeze bottles
 - Temporary containers
 - Sample vials

More Simple Stuff for Preparation

- Have staff members and users follow specified work controls
 - Wear proper attire as specified by Argonne
 - Wear specified PPE when handling chemicals and LN2
 - Have readily accessible any written instructions or procedures for operating equipment
 - Keep fire doors closed unless need to prop open momentarily to move equipment through door – *don't prop open for ventilation or convenience*

- Especially need your help on this one:
 - ***Keep user machine shop doors closed when no one is inside the rooms***

This Advice Still Applies!

Say what you do

Do you have documents that clearly state your practices and procedures?

Do what you say

Are you following the practices and procedures that are in place?

Need Your Help On A Recurring Problem

- 2005 OA review report expressed significant concern with the potential for exposure to hazardous metals (mainly lead) in the LOM machine shops
 - Ventilation not adequate to provide sufficient protection
 - Not performing air monitoring or medical surveillances on machine shop users
- Corrective actions included access controls (card key readers) and qualifying personnel for machining lead
- Also prohibited lead use in some shops
- BUT...
 - Doors are being left propped open while no one is in machine shops, often for extended periods
 - Periodic lead surveys have found lead contamination above allowable limits in shop vacuums and machine surfaces inside shops where lead is prohibited

What's The Problem With This?

- Leaving doors propped open defeats access control
 - Recently found unauthorized person alone in a shop and using a lathe
 - Person didn't know how to operate it and was not using it safely
 - Person was removed from shop and door closed
 - Could easily have resulted in a serious injury

- Lead contamination may result in unexpected lead ingestion or intake

- Will be interpreted as hazard controls not being followed and will result in another significant concern in the upcoming review

What's The Cause?

- Doors being propped open most likely due to inattention combined with convenience (don't think about closing door, especially if not planning on being gone long, and easier to leave open so don't have to always swipe card to open)

- Lead contamination may have several causes:
 - Personnel are deliberately violating the prohibition
OR
 - Unauthorized personnel are accessing the shops when doors are propped open to work on lead items
OR
 - Personnel don't think what they are doing creates a problem
 - Placing a lead sheet on a work surface and then cutting it with snips may leave sufficient contamination to exceed the allowable limits

What's The Cure?

Have your staff always close the doors EVERY time they leave an LOM machine shop.