



# LBL and EETD Environment Health & Safety (EH&S) Update & Plan of Action

EETD All Hands Meeting  
Friday, October 24, 2008



## Outline

- Recent History
- Safety Process
- Future Plan of Action



# EH&S Update: Townhall Meeting in June 2008

- **In the June 2008 EETD Townhall, we reported that:**
  - LBNL is currently under close scrutiny from DOE
  - We have to demonstrate that ISM practices are fully and effectively employed
- **We asked you to:**
  - Improve housekeeping of our labs and offices
  - Complete Job Hazard Analysis (JHA) – 100% compliance by Sept. 30
  - Update safety procedures, work authorizations and other safety related documentation
  - Carry out periodic lab and office inspections by senior and line management
  - Address all safety problems immediately



# EH&S Update: How far have we come?

## What we've accomplished since June:

- EETD achieved 98% Job Hazards Analysis (JHA) completion
- EETD achieved 90% required training compliance
- Conducted and documented walkthroughs of all EETD labs & offices
- Completed aggressive clean-up of EETD spaces
- Updated documentation of safety procedures & work authorizations

***We have made significant progress in all areas.  
Thank you for your commitment and effort !!!***



## Current Situation - Level 1 Email

- DOE has changed requirements for safety in all National Labs
- LBNL has not fully adapted
- Health, Safety, Security (HSS) Review coming up in early Dec'08 and late Jan-Feb'09
- If LBL gets  $\leq$ B- , we are on the road for changes in UCOP management
- Use this as opportunity to create new Safety Culture - “**Best in Safety, Best in Science**”



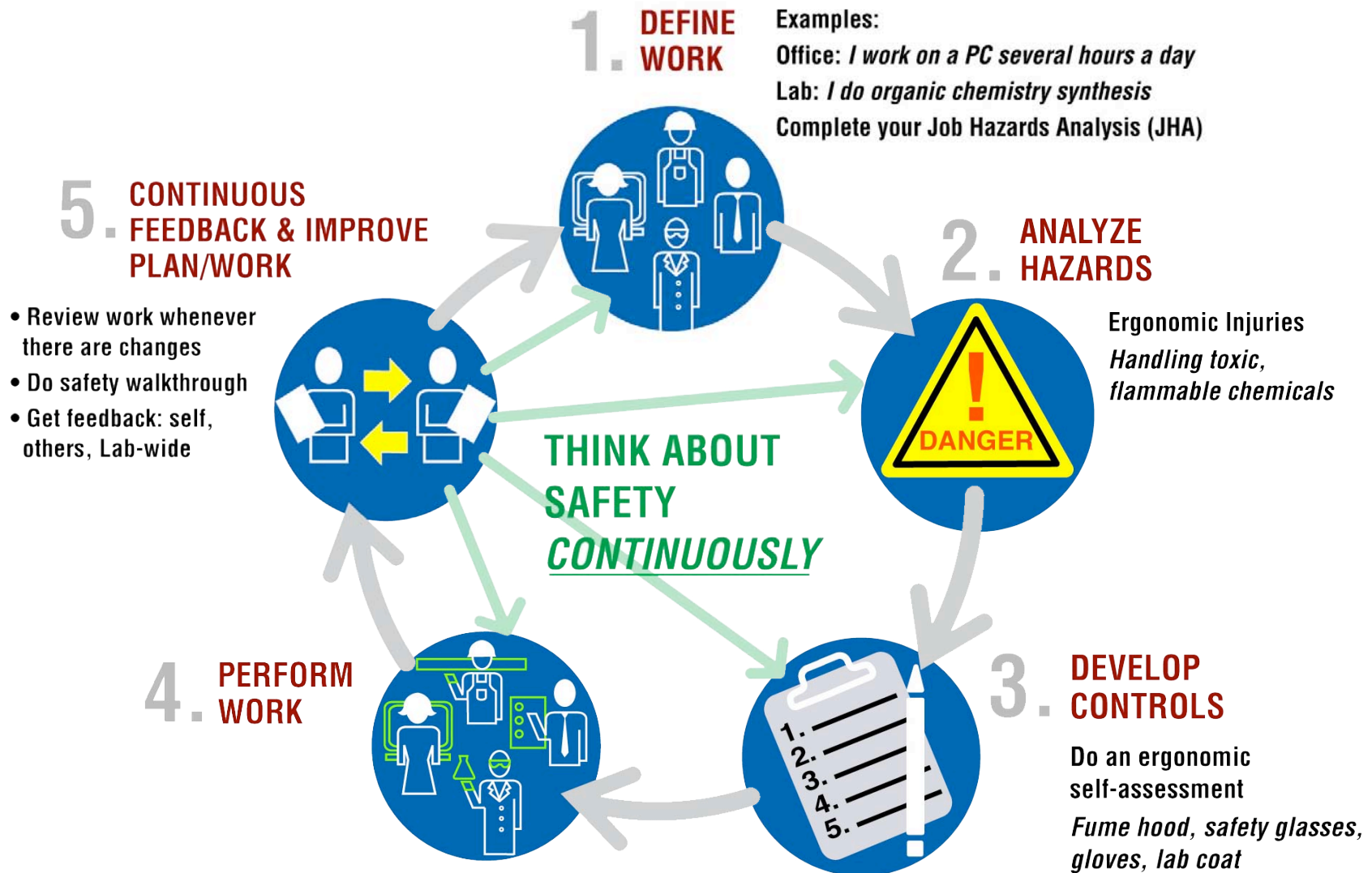
# ● ● ● Reality

- Accidents are bound to happen - so why bother?
- Minimize risk for accidents (understanding ISM process)
- Create a continuous process to (re)evaluate hazards, develop controls, report near misses, and utilize lessons learned so as to minimize risk of accidents

# INTEGRATED SAFETY MANAGEMENT (ISM) & JOB HAZARDS ANALYSIS (JHA)



Environmental Energy  
Technologies Division



# Key Contacts • How You Fit In • Your Responsibilities



Environmental Energy Technologies Division

### Your Supervisor's Responsibilities:

- Discuss your work with you
- Assign you to the appropriate work group(s)
- Review your Job Hazards Analysis (JHA) and approve
- As appropriate, modify individual employee JHA profiles

<p><b>Your Supervisor:</b></p> <hr/> <hr/>	<p><b>Your Work Lead:</b></p> <hr/> <hr/>
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### Your Work Lead's Responsibilities:

- Discuss your work with you
- Assign you to the appropriate work group(s)
- Review your Job Hazards Analysis (JHA) and approve
- Develop work group hazard and training profile

### Your Division Director:

*Arun Majumdar*

x7784  
AMajumdar@lbl.gov

### Your Work Group(s):

**You:**

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### Your Safety Coordinator and Assistant Division Director for EH&S:

*Robert KostECKi*

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R\_KostECKi@lbl.gov

*Guy Kelley*

x4703  
GOKelley@lbl.gov

### Your Division Director's Responsibilities:

- Provide leadership and oversight of all division safety matters
- Enforce safety accountability with all EETD staff and guests

### Your Responsibilities as a Worker:

- Incorporate safety into every aspect of your work
- Take Job Hazards Analysis (JHA) to define your work, identify hazards and controls
- Apply Integrated Safety Management (ISM) steps to all of your work
- Take all training needed to do your work safely

### Your Division EH&S's Responsibilities:

- Direct and monitor division safety programs
- Provide technical advice and support on all safety matters
- Manage significant safety incidents





# EH&S Update:

## Where do we need to be?

### Our goals are:

- Everyone in EETD has to be on the same page regarding safety—we need collective effort
- Safety Process should be simple enough for high-school student to understand (e.g. no acronyms, graphical depiction)
- Fully integrate safety into all our work activities & fundamentally change our work safety culture
- Sustain our focus on safety **permanently**
- Comply with all EH&S requirements and regulations
- Get ready for the upcoming Health Safety & Security (HSS) review

# ● ● ● Roles & Responsibilities

## ○ Everyone

- Understand ISM
- Know your duties and be trained
- Know the hazards for all the places you work
- Ask yourself – *who is responsible for your safety?*
  - *What will I be doing?*
  - *Do I know what the hazards are?*
  - *What do I need to do the job safely: training, tools, time, authorization?*
  - *Am I doing the job safely?*
  - *What can I do better?*



# Roles & Responsibilities

- **Supervisors and Work Leads**

- Know where your employees work and the hazards of their jobs
- Make sure your direct reports take the JHA as needed (at least annually) and are trained

- **Management (Division Director, Dept Heads, PIs, Supervisors, Work Leads)**

- Provide leadership on safety issues
- Frequent inspections of areas
- Talk to your staff about the work and work safety
- Walkthroughs required: All lab and office areas >4 times a year
- Document walkthroughs
- Follow up on any corrective actions



## Some Best Safety Practices in EETD

- R. Cheng, D. Littlejohn ...identified work hazards in 70- machine shop which resulted from the use of the machine tools by unauthorized/untrained personnel. Appropriate preventive actions were proposed and implemented
- T. Hotchi ...observed potentially unsafe work practices/conditions and provided on the spot direction and suggestions for corrective actions to students and interns
- J. Slack ...took a proactive and innovative approach to manage equipment and hazardous materials during recent cleanup of his labs
- J. Kerr ...developed a consistent and effective plan to manage safety in his labs



# Group Safety Culture

- **Safety is the first item on the agenda**
  - A safety walkthrough of the labs happens every week before group meeting
  - A safety discussion occurs at every group meeting
- **The EH&S and Division Safety staff are part of the team**
  - They are here to help us, not play “gotcha”
  - They are here to help us with training and to provide the right tools for us to work safely
- **Safe work is good work**
  - Everyone in the group is responsible for the safe and efficient running of the lab
  - Everyone in the group is empowered to stop unsafe work and correct unsafe conditions
  - Everyone from the Lab Director to our Janitor is part of our safety team and they all make a difference



# Safety and the Supervisor

- **As a supervisor my performance depends on the performance of those who report to me**
  - If my staff members are unsafe - I am responsible
  - It is my job to provide the tools and facilities so that the safe option is the easiest option
  - It is my job to provide the resources for the job to be done safely. This includes being a “squeaky wheel” with my Department Head, My Division Director, the Lab Director, and DOE until the problem is fixed.
- **I expect those who work for me to work with me on all matters relating to lab operation and particularly safety**



# Near Misses & Injuries

Near Misses, Injuries & Lessons Learned will be included in “What’s New in EETD” emails. Database will be created.

EETD Near Misses							Updated: 10/22/2008
Date	Location	PI	Work Lead	Facility No.	Dept.	Description (No injuries except where noted)	Corrective Action
6/21/07	Field			35	AS	Electric shock from faulty ground.	Equipment and house wiring reviewed and repaired by qualified electricians.
12/12/07	Cyclotron Rd.			35	AS	Bike vs. pedestrian accident caused moderate injury.	Evaluate hazard lab-wide. Publicity campaign. Improved ped crossing markings and signage.
9/1/08	70			n/a	n/a	Numerous water leaks (the last being on this date) creating slip and electrical hazards.	Repaired. EETD conducted extent of condition review. Further corrective actions pending.
9/1/08	70-269			6	AET	Lab users w/o PPE. (Date approx.)	Users told to use appropriate PPE.
9/1/08	70-269			37	BT	Lab user w/o PPE. (Date approx.)	User told to use appropriate PPE.
Approx. 4 per year	EETD			n/a	n/a	Ergonomic Injuries. Early intervention vital to prevent more serious injuries.	Improved ergo training and follow-up, education about early reporting.

## EETD Injury Summary

Updated: 10/22/08

Date (PY = Performance Year)	Type		Days Lost	Days Restricted	Injury Description (RSI = Rep. Strain Injury)	Facility Number	Dept
	1 <sup>st</sup> Aid	DOE Recordable					
8/22/06		X			Ergo D RSI, upper body	31	BT
11/9/06		X			Ergo D RSI, rt elbow & hand	n/a	EA
12/14/06		X			Ergo D RSI, hands & wrist	5a	AET
1/24/07	X				Rt. toe contusion & abrasion	n/a	BT
2/28/07		X			Ergo D RSI, rt hand	n/a	Div
6/21/07	X				Elect. shock (offsite) (ORPS)	35	AS
6/29/07	X				Rt. wrist sprain	n/a	BT
7/10/07		X			Ergo D RSI, both arms	n/a	BT
7/17/07	X				L. thumb cut from test tube	5b	AET
9/25/07	X				Ergo - RSI, rt wrist	n/a	BT
PY2007 Totals	5	5	0	0	6 Ergonomics (60%) 4 Other (40%)		
10/17/07		X			L. ankle sprain	n/a	IE
12/12/07	X				Bike accident D contusions	35	AS
7/14/08	X				Ergo - RSI, rt shoulder	10	IE
FY2008 Totals	2	1	0	0	1 Ergonomics (33%) 2 Other (67%)		

PPE: Personal Protective Equipment

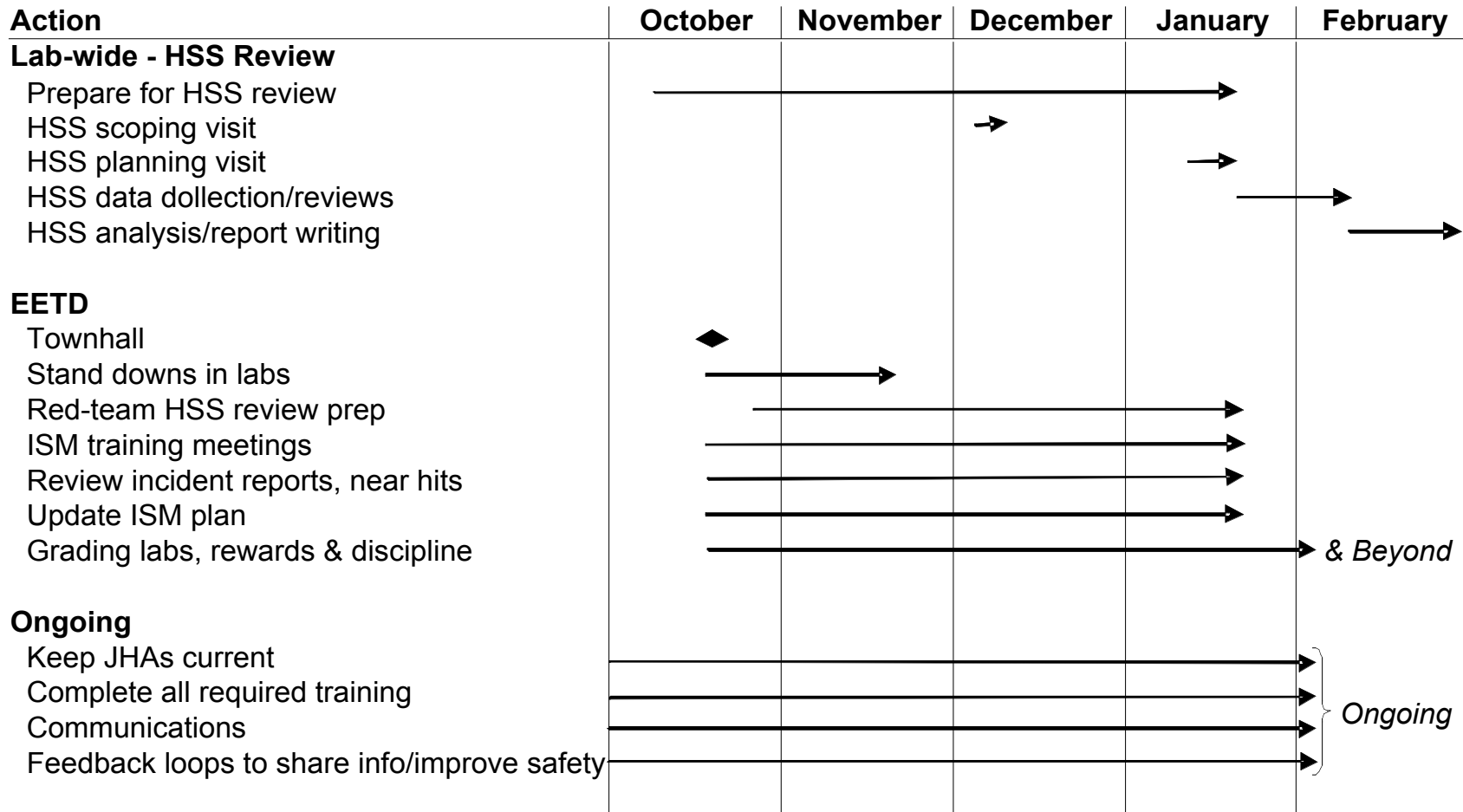


# EETD Safety Plan of Action

- Lab stand-downs and HSS preparation reviews
  - Mandatory half-day stand down in each EETD lab to address safety & prepare for HSS reviews
  - “Red Teams” visit labs & other areas to conduct HSS preparation/training reviews
- Integrated Safety Management (ISM) training meetings
  - Update EETD’s ISM plan
- Review incident and injury records to identify problems & corrective actions
  - Implement feedback process to report & track division near hits, lessons learned and best practices
  - Share safety information across division
- Safety becomes the important component of job performance
  - Labs graded on safety performance based on safety metrics
  - Progressive rewards and discipline for safety performance



# EETD Safety Plan of Action Five Month Schedule





# EETD Safety Plan of Action Stand Downs in Labs & Reviews

## o Internal stand-down in each EETD lab

- PIs lead stand-downs. Department Heads, Work Leads and all individuals authorized to work in lab required to attend
  - EETD or EH&S safety staff will participate, possibly with other non-EETD staff
  - Checklist developed to help PI & attendees prepare and participate
- PIs responsible for all necessary corrective actions
- Department Heads monitor completion of lab reviews and corrective actions

## o “Red Teams” visit labs to prepare for HSS reviews

- Staff from EETD, EH&S, other divisions & BSO form “Red Teams” acting as reviewers for preparation sessions
- Reviews will question and probe the understanding of ISM



# EETD Safety Plan of Action Lab Stand Downs - Deliverables

## o Lab Stand-Downs – Action Items

- Discuss safety concepts and practical aspects of ISM within your group
- Inspect all areas, noting deficiencies or improvements needed (including housekeeping)
- Review JHAs and training profiles
- Review required authorizations, documentation, signage, required personal protective equipment (PPE) and PPE areas
- Verify that all chemicals are recorded in chemical inventory system
- Review incident/injury reports (ORPS) and near hits/misses, discuss contributing factors, deficiencies, corrective actions, lessons learned

## o Deliverables (PI responsibility)

- Identify and designate responsible person for each room/lab
- All hazards in lab/room identified, controls implemented, JHA updated
- Reports of immediate actions sent to [ISM@lbl.gov](mailto:ISM@lbl.gov)
- Corrective action reports entered into CATS



# EETD Safety Plan of Action HSS Review Preparation

## o **HSS Reviews: What's involved? Don Lucas**

- Probing questions asked at any Lab location, at any time
  - How is safety implemented in your work space/lab?
  - How do you plan your work, identify and control work hazards?
  - Where are your work authorizations?
  - How would you handle a spill of xxx?
  - Who do you report safety problems to?
  - Who is responsible for your safety?

## o **Preparation Goal:** PIs, Work Leads, Dept Head and all workers engage in active, participative discussion of how safety is addressed in labs and other work areas



# EETD Safety Plan of Action ISM Training Meetings

**Departments hold ISM meetings with all staff to discuss:**

- Integrated Safety Management (ISM) process
- Job Hazards Analysis (JHA): purpose and roles of Supervisor, Work Lead and Worker
- Authorization and documentation requirements
- Q&A on safety
- Other topics and safety requirements that may be probed during stand-down
- Preparation for interaction with HSS reviewers

# EETD Safety Plan of Action

## Grading Labs & Progressive Rewards/Discipline

- **Safety performance of all labs evaluated**
  - Identify appropriate safety metrics for specific labs
  - Grade labs on safety performance
  - Identify patterns of strong & weak safety performance
- **Progressive rewards and discipline for safety performance**
  - Safety SPOT awards from \$100 to \$500 for notable safety practices
  - Recognition of strong safety performance in performance reviews
  - Disciplinary actions for recurring or negligent safety problems:
    - Counseling
    - Corrective action plan and monitored implementation
    - Letter to HR file
    - Lab shut down until problems addressed
- **Intentionally not reporting an accident in fear of punitive action is a serious violation**



# Summary

- **We need to:**
  - Fully integrate safety into all our work activities
  - Fundamentally change our work safety culture
  - Sustain our focus on safety permanently
  - Comply with all EH&S requirements and regulations
  - Get ready for the upcoming Health Safety & Security review
- **We are judged by our staff and by DOE on how well we:**
  - Protect people and property
  - Do what our policies and procedures say we do
  - Identify problems and fix them immediately

*All of us are expected to actively participate in the process over the next three months so we improve safety, build trust with DOE, and continue our important research under this contract*