

**Environmental Subgroup  
Environmental Safety & Health Working Group  
Fall, 2008 General Meeting**

**Tuesday, October 7, 2008**

<u>Time</u>	<u>Topic</u>	<u>Lead</u>
8:00 – 9:45	Group Meeting Kick Off	ES&H Working Group
9:45 – 10:00	<b>Break</b>	
10:00 – 10:15	Welcome	Ross Fanning
10:15 – 10:45	Chemical Redistribution at PNL	Alice Ikenberry
10:45 – 11:30	Draft EMS Guides	Jane Powers
11:30 – 12:30	<b>Lunch</b>	
12:30 – 1:30	Best Management Practices Session -Introduction -RCRA Training Inspections to Improve Compliance Performance -Planning for Large Scale Cleanouts of Legacy Equipment	John Irving Tori George  Dennis Hjeresen
1:30 – 2:00	Follow-Up from ISM Workshop	TBD
2:00 - 2:15	<b>Break</b>	
2:15 – 2:45	Integrating Safety and Security into the EMS Life Cycle	Dennis Hjeresen
2:45 – 3:15	Integration of EMS with ISM Roundtable	All
3:15 – 3:30	<b>Break</b>	
3:30 – 4:30	Carbon Footprint Roundtable	All

**Wednesday, October 8, 2008**

<u>Time</u>	<u>Topic</u>	<u>Lead</u>
8:00 – 9:45	Task Updates/New Tasks	Ross Fanning, et al.
9:45 – 10:00	<b>Break</b>	
10:00 – 11:30	Round Table/Site Updates	All
11:30 – 12:30	<b>Lunch</b>	
12:30 – 1:00	DOE Order 430.2B	Melissa Hunt
1:00 – 2:00	Energy and Fleet Management	TBD
2:00 - 2:15	<b>Break</b>	
2:15 – 3:15	Energy and Fleet Management, cont.	TBD
3:15 – 3:30	<b>Break</b>	
3:30 – 4:30	General Discussion/Wrap-Up	All

Las Vegas, Nevada

Oct 7, 2008

Presentation Chemical Redistribution at PNNL - Alice Kenberry

- Concept 'Start Clean', 'Stay Clean' (SCSC)
- How to manage the 'life cycle' of chemicals
  - Limit # chemicals used
  - Determine best way to dispose
- Management Costs
  - ∴
  - see presentation
- Having difficulties with Fire Loading Limit. Only so many flammables allowed in the Chemical Distribution Center
- Has a community redistribution component, including colleges and communities

- Tori - How many people, cost  
4 daily basis  
1 lead for CRC  
Evaluates Redistribution 1/2 FTE  
P2 pays for lead  
Research directorate pay for clean up; initial inventory

Denny DOE Transportation Issues  
Ship: under MOT requirements  
Few chemicals required Haz. Waste Transp. Officer

Bruce - Who pays for disposal  
Directorate pays

P. 2

Tori - When does <sup>Chemical</sup> ~~waste~~ issue become waste  
Sits more than 1 year → declared waste

Alice - Involved regulatory in the CRC process

Tori - Written Procedure? Yes

Bruce - How to deal with end of Project orphan  
Disposal Costs

- Projects have to set aside \$\$ for disposal because Directorates no longer will pay for it.
- Management is supportive

Denise

Formal agreements to University. Excess (staff) group get necessary approvals from DOE for distribution to University.

Tori Researchers want new chemicals - how to get around this culture/attitude. Researchers do not need ~~the~~ to use the center. Center does have unused material.

Alice Most of chemicals are wet lab, non critical to experiment

Laurie - Awareness program to make researchers aware.

Denny - How to involve Procurement.  
 large part of CRC (SCSC) is to get other management systems involved

i.e., Procurement, Excess, Fleet Mgmt.

David - Software - Customized Program  
 Alice Point of Contact

Presentation  
 Draft  
 Get Final  
 from Jane

Draft EMS Guides - DOE Guide 450.1A & Implementation Guide for use with DOE O 450.1A

- Needs to reflect the elements of ISO 14001
- What does it mean to be fully implemented
- \* OFEE → Clarification Document at end of DOE Order  
Office of Federal Environmental Executive
- Both Contractor & DOE Manager must review audit and determine conformance

Orin - Contractor has registration. Does that registration allow other <sup>(groups)</sup> contractors like DOE, Security, etc. to claim conformance. At some sites ~~other~~ DOE, etc. can feed into Contractor EMS

Jane - Did not want small <sup>DOE</sup> site offices to  
 get EMS - but have other requirements

Prased issuance of guide.

See contact

? - Discusses when Site Offices do not fall under  
 Contractor EMS

'Site Office' that are onsite should be  
 integrated into Contractor's EMS

Bruce - Described INL's experience with  
 two contractors at ~~DOE~~ INL; two  
 EMSs, including an EMS for DOE

SRS has EMS that covers DOE & other Contractors

David → SPR

1 MO EMS  
 Other contractors

} Expand EMS  
 to cover all  
 Contractors

Suggestion for guidance (to Steve) - Give example  
 of different way sites implement EMSs at

Site — INL, ORNL, SPO, SRS

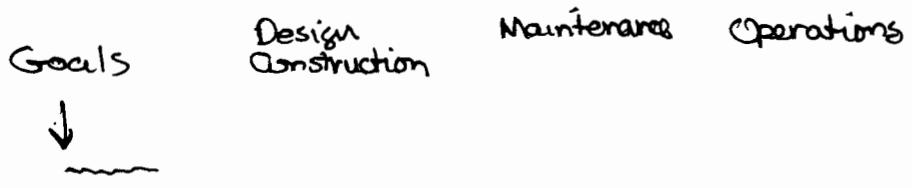
↑ ~~DOE~~ Highlight differences

# A Guide to Integrate Sustainable Practices into EMSs

Jane Presentation

Denise - Aspects could be positive as well as negative. Will the guide discuss 'enhancing' as well as 'MINIMIZING' activities?

Prepared a four page matrix 'Sustainable Practice Matrix'



The guide will discuss environmental aspects, significant aspects, sustainable practices

Best Practices, Lessons Learned, Sustainable Practices

David S. <sup>Sustainable Guide</sup>  
 Date of first guide? - End of Oct. for RevCom  
 Steve's Guide on 451.1A - End of Nov. for RevCom

Denny - New 450.1 implies that reporting of O will come back through the EMS to headquarter

Working to accept information

How will report progress in near future

Jane: Does not know if anyone is working to coordinate info. Call

Susi Concern about needing to report on 450 : 430 and may have duplicative reporting

Jane - There will be new EMS metrics next year. Steve is work in an interagency work group to develop new questions (metrics).

Report on the P2 Tracking System and on the EE ~~or~~ reporting system.

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JOHN - BP Presentations

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RCRA Training Inspection to Improve Compliance Performance — Tori George

Typical Inspection — 10 to 15 folks for a week;

★

The EMS is effective

Self Assessment — 1 person acts as an inspector

Expanded assessments beyond to cabinets

2,500 Inspections / Year

Information on Web for Managers to view

Process is designed to minimize RCRA footprint

How do we get managers attention:

Up Front Prevention

→  
Putting more eyes

Use Walk Around Cards

} Needs to be 1st  
Line Managers

Training Assessments

EMS/Environmental Manager walks around

with Line Managers

- Biggest change - changing to a system approach  
Work around with Manager
- Put a compliance objectives in operational activities

### Planning for Large Scale Cleanouts of Legacy Equipment - Tommy Hjerresen

- Compliance and also a Health; Safety Problems  
Institutional Objectives

Each organization is ~~responsible~~ responsible for choosing an objective

Adds to costs - taking care of records

Document Processes; Provide Tools

Six Sigma approach

What are problems (Disincentive)

- 1- Employees don't know
- 2- People change (move, leave)
- 3- Storage / 'Hiding' is cheap
- 4- No funding for disposal ∴ see list on handout/in presentation

Best Practice Tool Kit is on EMS

Safety, Security, & Environmental prepared the 'Disposition and Cleanup Toolkit'.

## Follow-Up from ISM Workshop

- Lack of 'E' Discussion ~~and description of~~ in workshop
  - Missed opportunity with ~~the~~ ESH directors
  - No integration w/ the ISM Working Group
- + We discussed ways to integrate
    - Chemical Inventory
    - Excess property
    - Safety
    - Waste
  - + Ross will request a roster for all EFCOG subgroups and distributed
  - + No guidance to Safety that 450 ; 432 be implemented through EMS

## + Integrating Safety and Security into the EMS Life Cycle -

Presentation Denny Hjeresen

- Bottom up organization
- Safety for You, Security for the Nation, Environment for the Future
- ISO requirements driving the fix of other systems  
because such as records
- Combined ESH Job Hazard Analysis tool
- Awareness important - Posters

Logo

idea 

- Combine newsletter to cover 'Environment', 'Safety', & 'Security'
- Take Orps Reportable incidents and look for underlying <sup>environmental</sup> theme.  
For instance; Orps tip over chemical, cause fire - The underlying issue or problem is the storage of an unsafe chemical.
- Environmental Group meets with groups
- Ask summer students to improve sustainability ideas; had a contest

Denise - What did Quality think?

INL Performance Assurance - Put together a 'performance portfolio'

Carbon Footprint Round Table - Dave Froese

NREL - doing it for six years

Developing Sustainability

Promote 'Bike to work week'

# NREL - Give presentation on NREL's Carbon Footprint experience

Discussion on the merits of using different carbon footprint calculators.

- Depends on purpose - Employees, keep it simple & easy to use; / only for awareness
- Agencies use more sophisticated models for a more accurate measures
- Others interested because of potential ~~use~~ 'caps' in the future
- Where is DOE headed

- Looking at 430... capture reduction of fuel, but as take credit for

{ [www.serriaclub.org](http://www.serriaclub.org)  
 Carbon Confessional carbon-calculator } For comparison between different calculators

- Wait & see
  - Conference call
- } Follow up with Steve

ES:IT integration



<sup>tools that</sup>  
 Many ~~most~~ sites ~~will~~ have integrated ES:IT (hazards or instructions) but the instructions are still separate or stovepoint. Not true integration.

Las Vegas, Nevada

Oct 8, 2008

Lavid Bolser - SPR -

- Biggest challenge is the EO & DOE.
- Prepared Matrix of requirements
- 25 M / 10 yr. period — recommend EM for those reasonable requirements

req.

	years	SS	Projects		

DOE approved matrix for \$950 thousand, but was unclear on these task not accountable to do

- DOE & Contractor working as one team
- Combining Contractor, DOE, & several smaller contractor EMSs into one EMS. Challenge to get all the EMS related information from contractors not obligated to work with M&O contractor.

Susi Jackson - LLNL

Struggling w/ EMS & ISO 14001. Certified at a basic level several years back. The EO/DOE have caused problems because it is mandated, where many ISO requirements can be considered.

\* Working toward June 2009 to comply with EO. Susi is still there!

43% reduction in staff, but still doing okay from a compliance standpoint

↓ BACK

Gretchen - Battelle

- Unique situation because not directly associated with DOE.
- Asking to support 'Sustainable' practices for corporate this year.
- Interests in Carbon Footprint
- Going for ISO 14001 this year

Interests

S.H have dropped 'E' — Silent 'E' again

Assistance in 'Management Review' — not responsive to EMS goals & objectives — Guidance?

Denny advise — Solicit senior management to set on <sup>steering committee</sup> ~~committee~~. Over time they took ownership of goals & targets. Demonstrate things on a cost-benefit

Orin — Face-to-face w/ top eight persons in company to review EMS, targets, objectives and environmental concerns. Need a champion that will bring you to the table

Denise — Suggested seeking support from Sustainable

Bruce — • Quarterly letter to senior managers under previous contractor; Quarter letter - meeting with current contractor to review ISO ~~contra~~ requirement & issues

• Focus on group of Leaders that have responsibility for requirements

Tom Treske -

Reviewed survey on 'Management Review'. Believes that the EMS Survey would help those who are struggling with management review

\* Possible Focus - Metals ~~Management~~ <sup>Monitoring</sup>  
 LANL - Silver  
 INL - Copper

← Denny

Some unwilling to manage

Tony Umak - Not a new issue, work with groups to find answer to 'Metal Monitoring'. Think about how to get it out to the 'user'.

Micky DiCannara (SLAC)

- Lots of management change ; budget cuts. (More w/ loss)
- Performing a detailed work survey (ESCO)
- A lot of fleet reductions (Want 50% of cars gone!)
- Conversion to onsite fueling to E85
- Working w/ university on sustainability issues.  
 i.e., working with transportation team, etc.

Cooperating on recycling

- Conceptual designs for new buildings
- Preparing a greenhouse gas inventory - TCR -  
 Joining TCR
- Cafeteria composting project
- Working with Chemical Redistribution Program. Working with Stanford Univ

in electric circuit breakers

68% Energy  
 Acetal  
 \* SF6  
 Sulfox Fluoride

Denise Rayborn NREL

- Managed by Alliance ... MRI/Battelle
- ISO 14001 & 18001 & 9000 in the next three years in contract
- Lots of money for buildings, which must be lead gold. the lead ~~supp~~ R:D is going platinum. Challenge is having people to fill them

Focus → How to keep safety culture with student employees & subcontractor  
Security, Safety and Environmental all-in-one,

Orin Haworth - NTS

- ISO 14001 Certification in July
  - Changed contractors in 2006
  - ~~NS~~ New contractor will get ISO 14001, VPP, & ISMS.
  - Formed an integrated team to review group those processes.
  - Assessor - Best Practices group ISO 14001, ISO 9000
  - Do lots of self assessments to track issues and use it as a 'Leading Indicator'.
  - Prepare
  - Successes - With monthly meeting w manager have created a 'Vulnerable Sites List' and 'Regulatory Vulnerable Sites' lists and use a multiple ~~site~~ disciplinary group to assign risk to help prioritize. You can show regulators that issues they may find is on the list or will go on the list.
- 50% overlap  
together  
good →

SRS Ben Terry

- SRS going through contractor transition - Fluor -
- EMS Policy recently signed
  - Includes all site entities (Forestry, Security, other contractors)
- Aspects now include transportation
- Honeywell <sup>Kansas City</sup> good third party assessor
- Started 1st Biomass Boiler

Bruce Angle - INL

- Allowed
- Integration is the default position because of ISM
- Prepared EMS Program Document that is a Road Map
- Totally ineffective Environmental Stewardship Committee.
  - Recently ~~the associate~~ revitalize the committee. Already working P2 issues.
- Took 450, (9/11) 230 (Not in contract); but are still working the issues
- Struggling w/ energy requirements because of light vehicles and try to require users
- Battelle won extension to 2014 Helps w/ changing cultural
- Reducing budgets, ~~reducing~~ increasing age of work force

Great Idea



David Faise - Develop program to use a mentoring program that allows those near retirement to go to a 32 hour work week and mentor a new <sup>(younger)</sup> ~~perso~~ person.

- Legacy Environmental Issues: List, prioritize, cost and work as money becomes available  
 ↓  
 Bawl

- LLNL - Denny, Terry
- How to take a mature EMS and turn them into EMS continuous improvements
- One big goal → 0 limit discharge.
- Turned an EMS Objective for a Project w/ budget to attain goal and permit levels
- Energy: Created an Energy Management Plan to help implement 430.
- Lots of regulator inspections this year; Lots of sites with permits; pay attention to detail
- Important to roll down requirements to subcontractor
  - Places req. in contracts (LLNL)
  - Thinking of preparing a book or pamphlet (NREL)
  - Big Issues
    - 1) CWA (1 year old)
    - 2) ~~RCA~~ RCRA (10 years past reissuance)
    - 3) Air Operating - Open burning, detonation
    - 4) Wildland Fire
    - 5) Stormwater Permit

Outfalls - 151  
 10 yfas  
 - 20

- Sustainable B
- Pollution Prevention } Step out of regulator
- Biggest challenge is relationship w/ concern citizens
- \* political regulators

Dale Bignell - Washington Closure Humed Ford

- Four large treatment projects ongoing
  - Plantau
  - River Corridor - 220 sq. mile
  - Tank Farm

### River Corridor

- = 400 waste sites; by <sup>end</sup> 2008 done about 100
- 500 buildings; by end of 2008 about 60
- End of 2008 1.6M tons of debris
- Regulated and CERCLA
- Difficult in negotiating milestones w/ regulatory; state consider taking to court.
- Done in 2015
- Received letter from 450.1A <sup>and 432</sup> to evaluate for cost
  - Many items do not apply to closure sites

Tom Trosky - No language that allows HSS to exempt clean-up of these facilities. ~~that are being~~

The T.E.A.M. Initiative included all EO actions and to help develop 450.1A and revising 432-b

Other EM Sites are reporting sustainability benefits. So why should HSS give exemptions. Try to use performance based approach instead of pay by the barrel.

### Reporting of Spills -

- Parking heavy equipment on sheets of plastic
- working w/ Regulatory 6" Diameter, 1 in deep
- Prepare short survey to find share how sites handle reportable petroleum release

Melissa Hunt  
DOE Order 430 ZB

- Energy Management Council (Team Members)  
Energy, Engineering, Facilities, Est/Q, Utilities,  
Fleet Mgmt, water, Maintenance, Process Improvement,
- Funding a big stumbling block (i.e., unfunded  
mandate. Difficult to provide plans without \$\$
- Developed employee awareness program - Newsletters & Posters
- 

nanotechnology

- Need a simple guide that is flexible
- Review NRC ~~and~~ document. The scope } Should look at both
- ASTA International Document

Concerns with nanomaterials:

- Waste
- Chemical Management

The concern is that these are things that we do not know that we do not know.

For Nanomaterial in R/D world - We need to manage uncertainty because change occurring so quickly

Ask Bruce

- Need a task force that includes several disciplines
- Important for each site to have someone who could talk to the public.

Links from  
Tony Limok  
John Portier

- ✓✓ Benjamin Terry (SRS)
- ✓✓ Bruce Angle (INL)
- ✓✓ Susi Jackson (LNL)
- ✓✓ Tori George (LANL) (Victoria) torige@lanl.gov
- ✓✓ Dennis Hjeresen (LANL)
- ✓✓ David Skipper (ORNL)
- ✓✓ Gretchen Farnung (Battelle)
- ✓✓ Dale Bignell (Wash. Closure Hanford) (dale.bignell@wch-cc.com)
- ✓✓ David Folse (~~SSO~~<sup>SPR</sup>)
- ✓✓ Orin Haworth (NTS)
- ✓ Alice Kenberry (PNL) (Phone)
- ✓ Kami Lowry (BNL) (Phone)
- ✓ Jane Power (HHS) HHS-22 Env. Policy: Assistance
- ✓✓ Ross Fanning (SRL)
- ✓✓ Mike Roper (SRL)
- ✓✓ <sup>Michelle</sup> Mickey DeCamara (SLAC) Stanford Univ. mdecamara@slac.stanford.edu
- ✓✓ Denise Rayborn (NREL) denise\_rayborn@nrel.gov
- ✓ Laurie True (PNL) (Phone)
- ✓ Tom Treskse (DOE)

Actions: Mail (1) Spreadsheet on 430.2B to Dale  
 (2) Alice's presentation to Denny  
 (3) Denise Rayborn's presentation