MEETING MINUTES

Sustainable Lab Practices Working Group
NIH Environmental Management System (NEMS)
Wednesday, August 15, 2007
1:30 – 2:30 pm

Meeting Objective(s):

- Provide status of chemical inventory system and pilot lab selection
- Provide status regarding the purchase of a tissue digester and liquid scintillation vial crusher
- Provide status update on the Lab Safety Refresher Training revision
- Discuss Top 10 Target Chemicals Identification
- Discuss unused laboratory reagent chemicals and strategies to share them with other labs and divert them from the waste stream
- Comment on the Carpet Purchasing SOP
- Present the current NEMS Web site

Attendees:

Daniel Appella (NIDDK)
Swate Damle (ORF)
Robin Hirschhorn (Booz Allen)
Tim Killian (Booz Allen)
Terry Leland (ORF)
Polly McCarty (ORS)
John Prom (ORF)
Wendy Rubin (ORS)
William Trenkle (NIDDK)
Dawn Walker (NCI)
Don Wilson (ORF)

Minutes:

NEMS Update

Terry Leland provided an update on the NEMS. Ms. Leland met with Dr. Michael Gottesman, Deputy Director for Intramural Research to discuss the environmental training beyond online options. In addition, they discussed strategies to increase the involvement of NIH researchers in NEMS programs.

One idea discussed was the possible addition of an environmental component to the lab chief's ethics training delivered each Fall. The ethics training delivers its material in the form of case studies. The question was asked whether there was time to add such an environmental component to the Fall 2007 ethics training. The general consensus of the working group was that adding NEMS training to ethics training was not a good

idea because a) the training is more about scientific ethics and b) the training is not popular and usually hastily performed.

Strategies were discussed on how to raise NEMS awareness across labs and NIH. Dawn Walker suggested the designation of environmental coordinators for each lab or institute, in the same manner that the current recycling coordinator for each lab/institute is currently managed. However, no conclusion was reached and a message has not been sent on the Lab Manager's listserv and the Greenserv asking for volunteers.

Status Review of Objectives

The status of lab-related NEMS objectives were reviewed.

Status of chemical inventory system

Don Wilson and John Pron provided an update on the goals and objectives related to chemical waste.

The IT group selected and approved of the Oracle-based Vertere Inventory Manager as the new system for managing the chemical inventory at NIH. The Vertere Inventory Manager will be purchased in the near future. In addition, 10 volunteer labs to participate in the pilot study have been identified.

Unused chemical baseline report

Data regarding the top 12 unused chemicals at NIH from June 2006 to May 2007 was presented at the July 2007 Working Group meeting. Unused chemical were tracked as they entered Building #21.

Claudia Gerwin distributed an email soliciting ideas for managing unused reagent chemical from labs. Several of the ideas she received involved the utilization of a database to track and share information regarding the available unused reagent chemicals. It will need to be determined if the Vertere Inventory Manager has this capability. The issue with a storage location was mentioned, and Don Wilson suggested that potentially Building #10 or #35 loading dock would be available. Mr. Wilson indicated that the NIH hazardous waste contractor would support this procedure and deliver unused reagent chemicals to labs on a trial basis.

The next step is to determine if the Vertere Inventory Manager will support the sharing of unused reagent chemicals, and if not, what database will.

Purchase of a tissue digester for MPW

An alkaline hydrolysis tissue digester is ready to be purchased for the on-site treatment of pathological waste at NIH. Don Wilson indicated that the contractor, PRI, provided a quote for the purchase of one or two units. The tissue digester will be placed in Building #25, which must be modified prior to placement of the unit. Mr. Wilson expects that the tissue digesters will be purchased in the next two weeks. Once placed into Building #25, the units will begin operating on a trial basis before a campus wide rollout will be initiated.

Liquid scintillation vial crusher

Wendy Rubin updated the Working Group on the status of the liquid scintillation vial crusher. The liquid scintillation vial crusher is scheduled to be purchased in November 2007. However, prior to installation the building where it will be located needs to be renovated to create space for the unit. The renovation will begin in November 2007.

Lab safety refresher training

Chuck Carroll is currently working on the revisions to the lab safety refresher training. He is coordinating with Suzanne Krall (OD). Once the update is complete the training will be presented to the Working Group.

Top 10 Targeted Chemicals Update

Tim Killian presented the updated draft Top 10 Target Chemical list to the Working Group (Attachment 1). This draft was updated pursuant to comments received at the July 2007 Working Group meeting. The eventual list will contain chemicals to be targeted by NIH and will be used to communicate the need to minimize the volume, procurement, and use of these chemicals. Tools such as the Green Chemical Purchasing Fact Sheet are also under development to support these goals.

Terry Leland suggested that a sub-group be formed from DEP and NIH lab personnel to discuss the chemicals that should appear on the final Top 10 list. Dawn Walker will distribute a message on the lab manager's listserv to recruit members for this sub-group.

Unused laboratory reagent chemicals

Claudia Gerwin distributed an email to the Lab Managers listserv asking for suggestions regarding how to divert unused reagent chemicals from the waste stream. She received three responses, two of which suggested the use of a database to make other labs aware of available chemicals, and the other suggested the use of a listserv to post chemical availability.

As mentioned under the objectives update, it was decided that the chemical inventory pilot using the Vertere chemical inventory system might feed into this strategy. Don Wilson indicated that we would need to determine if the system would support unused reagent chemical sharing, and whether there would be any issue with purchasing additional licenses for access.

Carpet Purchasing SOP

Tim Killian presented the Working Group with the most recent draft of the Carpet Purchasing SOP (Attachment 2). Mary Lee had been contacted and the information she had was included in the revised draft. All references to Mary Lee were replaced with a general reference to the Construction Management Branch. Don Wilson

suggested that we try and introduce someone from ORF Acquisition to this Working Group for their input on this and other related procurement matters for labs.

Additional comments on the fact sheet should be sent to Tim Killian (killian_timothy@bah.com):

NEMS and Sustainable Lab Practices Working Group Web site

Terry Leland and Tim Killian walked the Working Group through the updated NEMS Web site. They were shown the current location of documents (e.g., agendas, meeting minutes) generated in support of the Sustainable Lab Practices Working Group at the NEMS web site.

Dawn Walker suggested that we add some text with the purpose of soliciting new members to the Working Groups. Ms. Leland indicated where this language was already present, although it was lost in a large paragraph, and might be pulled out to a spot where it is more noticeable.

Action Items:

Action Item	Responsible Person(s)	Due Date
1. Identify members for the sub-group that will be established to identify the Targeted Top 10 chemicals. • Dawn Walker will recruit lab personnel using the lab managers listserve; and • Terry Leland will identify DEP personnel.	Dawn Walker and Terry Leland	Friday, September 14
2. Review and provide comment on the Carpet Purchasing SOP	Workgroup	Friday, September 14
3. Determine whether the Vertere Chemical Inventory System will support the sharing of unused reagent chemicals between labs.	Don Wilson, Charlyn Lee, & Roger Weidner	Friday, September 14

Next Meeting:

The next meeting is scheduled for Wednesday, September 19 from 1:30 to 2:30 PM in Building 13, Room 208. **THIS IS A NEW LOCATION.**

Availability of Documents:

A copy of the Meeting Minutes and the documents referenced therein is available at the following NIH Environmental Management System web site:

http://www.nems.nih.gov/teams/team_lab.cfm

NIH TOP 10 LIST OF LABORATORY TARGET CHEMICALS

CHEMICAL	USE	SUBSTITUTE
1. Alcoholic potassium hydroxide	Glassware cleaning	Laboratory detergents, Enzymatic cleaners, Aqueous solvents
2. Ethidium bromide	Nucleic acid gel stain	GelRed™, SYBY Green, SYBR Red, EnVISION™ DNA Dye
3. Phenol chloroform	Isolation and purification of DNA	Promega Corporation – Magic Stains, Stratagene - Lambda DNA Purification Kit Qiagen Kit
4. Xylene	Radioactive tracer studies (Liquid scintillation cocktails)	Nonhazardous proprietary liquid scintillation cocktails (National Diagnostics)
	Clearing agents in histology	Histo-Clear (National Diagnostics), Clear-Rite 3™, Americlear™, Histosolv X™, Mediclear II™
5. Mercuric chloride	Biocide solutions	Sodium Hypochlorite, Bleach
6. Mercury salts	Kjeldahl digests	Mercury-free catalysts (e.g., $CuSO_4$, TiO_2, K_2)
7. Mercury	Mercury thermometers and thermostats	Alcohol or mineral spirit filled thermometers Digital or electronic thermometers/thermostats
	Mercury Manometers	Pressure transducers, Electronic pressure gauges, Oil-based manometers
8. Formaldehyde or Formalin	Storage of biological specimens	Ethanol
9. Methanol	Slide staining	*No Substitute, Minimize Use and Purchase of*
10. Isopropanol/Propanol	Slide staining	*No Substitute, Minimize Use and Purchase of*

NIH Standard Operating Procedure

CHAPTER: Procurement

SUBJECT: Carpet, Purchasing New

OBJECTIVE:
To install new or replacement carpet in a NIH facility.

DESCRIPTION OF PROCESS:

The Office of Research Facilities (ORF) has a service for providing new carpet to NIH activities through contractors. The process is efficient and many carpet choices are available.

Place work request in DELPRO (for more information call the DELPRO contact at 301-496-5601).

When ORF has received and approved the work request, contact the Division of Property Management, Construction Management Branch (301-435-2987) to schedule the date and time for a contractor to measure the area to be carpeted.

Once the Construction Management Branch receives a seaming diagram, someone will contact you to schedule an appointment in Building 13 for you to choose a carpet from their selection of samples and books.

If the carpet selection is available, it will be delivered to NIH in approximately seven (7) working days. You will be notified of an installation time. Some carpets are manufactured on demand or pursuant to a schedule and may take several weeks to arrive for installation at NIH.

If you have installed furniture, it is recommended that you have the furniture vendor arrange for moving furniture out before carpet installation. Similarly, if you have a large amount of freestanding furniture, it will be less expensive to have movers remove your furniture prior to carpet installation.

Environmentally Preferable Carpet

When selecting a carpet to purchase for office space in NIH labs, request a carpet that contributes to LEED (Leadership in Energy and Environmental Design) Green Building Rating Credits. The LEED Green Building Rating System is the standard for environmentally sustainable buildings.

The Construction Management Branch offers a selection of carpets from Lees® Carpets and Mohawk Industries that contribute to LEED Green Building Rating Credits.

Carpet procured for NIH facilities shall contain 100% recycled content. In addition, carpets installed at NIH facilities shall emit low or no volatile organic compounds (VOCs) and shall be Carpet and Rug Industry (CRI) Green Label Plus certified. All carpet materials will meet VOC limits set by the Green Label Testing Program.

RELATED SUBJECTS:
Safety, Procurement, Scientific Equipment Rental and Sales,

ADDITIONAL INFORMATION:
Green Purchasing: For more information on the NIH green purchasing program, visit the NEMS web site:
http://nems.nih.gov/aspects/nat_resources/programs/green_purchasing.cfm?origin=nat_resources

ORF Green Purchasing Guide: The Green Purchasing Guide is available at the following ORF web site:
http://orf.od.nih.gov/Environmental+Protection/Green+Purchasing/

EPA Comprehensive Procurement Guidelines for Carpet: The EPA recycled content recommendations for polyester carpet are available at the following EPA web site:
http://www.epa.gov/epaoswer/non-hw/procure/products/carpet.htm

EPA Comprehensive Procurement Guidelines for Carpet Cushion: The EPA recycled content recommendations for carpet cushion are available at the following EPA web site:
http://www.epa.gov/epaoswer/non-hw/procure/products/carpcush.htm

The Carpet and Rug Institute, Green Label Plus testing program: Additional information on product requirements for the Green Label Plus testing program are available at the following web site:
http://www.carpet-rug.org/commercial-customers/green-building-and-the-environment/green-label-plus/carpet-and-adhesive.cfm