



MEETING MINUTES

**Sustainable Lab Practices Working Group
NIH Environmental Management System (NEMS)
Wednesday, November 29, 2006
10:00 am – 11:00 am**

Meeting Objective(s):

- Identify new objectives
- Begin to identify operational controls for lab activities

Attendees:

Swati Damle (ORF)

Robin Hirschhorn (Booz Allen)

Tim Killian (Booz Allen)

Charlyn Lee (ORF)

Kristen Peters (Booz Allen)

Andree Reuss (NINDS)

Wendy Rubin (ORS)

Don Wilson (ORF)

Minutes:

NEMS Update

Ms. Robin Hirschhorn provided an update on the NEMS. The following issues were discussed.

Building Temperature Setbacks

NIH is kicking off a campaign to institute building temperature setbacks with the goal of reducing energy use. The buildings affected are those with automated temperature systems. Sensitive areas will not be affected by the setbacks. An article announcing the launch of the campaign was published in the November 17th edition of the *NIH Record*.

Objectives and Targets

The NEMS is focused on getting objectives and targets in place. The objectives and targets will be reviewed by the NEMS Implementation Team on December 13. The NEMS Implementation Team is made up of program leads, working group leads, and others as needed to represent a cross section of NIH. The decisions made by the Implementation Team will be reviewed and approved by the Sustainability Management Team (SMT); the SMT is comprised of managers representing the different functional areas at NIH and oversees the entire NEMS implementation.

Review of Action Items

The action items resulting from the October 31 meeting were reviewed. The table below provides the a status update of these action items.

Action Item	Status
1. Working Group members should send any procedures that address environmental issues to Kristen Peters (peters_kristen@bah.com) so they can be posted on the NEMS community portal site	Ongoing
2. Dawn Walker will send procedures identified in the lab managers manual to the working group for review	Complete
3. Provide Kristen Peters with contact information of lab staff who should be or would like to be involved in the working group	Ongoing

Identification of Objectives and Targets

Robin Hirschhorn facilitated the group's review of 2005 objectives and the identification of new objectives.

Charlyn Lee provided an update on the objectives related to chemical waste, which are found in the current version of the Chemical Management Environmental Management Program (EMP). These objectives are:

1. Identify chemical inventory system for a pilot study (Vertére Inventory Manager has been identified as a possibility);
2. Generate baseline data and develop strategy for reducing unused chemicals;
3. Generate baseline data and develop strategy to reduce disposal rates of target chemicals; and
4. Conduct feasibility study of the potential to reduce lab equipment with mercury components.

The working group did not identify any additional objectives related to chemical waste.

Wendy Rubin provided 2 new objectives related to radioactive waste. These objectives are:

1. Install system to treat vials when required building renovation is complete
2. Investigate potential for procuring treatment system for treating liquid at NIH

The working group identified the general objective of identifying training needs targeted for lab activities.

Identification of Operational Controls

Robin Hirschhorn facilitated the group's identification of operational controls for lab activities.

The working group reviewed the table of contents for the Lab Managers Manual, which was provided by Dawn Walker (see Attachment 1). The procedures included in this manual are broad and do not solely address environmental issues. The working group determined that the group needed to review and revise these procedures to ensure activities will be conducted in an environmentally sound way. Tim Killian took action to work with Dawn Walker to determine if the working group can review the procedures in the Lab Managers Manual and make recommendations.

Prior to the meeting, Tim Killian reviewed lab training available online to determine if they are instructing their audiences to perform activities in an environmentally sound manner. The DOHS Laboratory Safety Training Refresher Course was reviewed in depth. Tim Killian informed the working group that environmental issues are addressed in this course but recommended reorganization of the training by waste stream and inclusion of roles and responsibilities. Wendy Rubin took action to review this training to determine if there are any issues or missing information related to radioactive waste. Don Wilson and CharylN Lee took action to review the training for issues or missing information related to the environment/waste. The working group decided it was important to have Polly McCarty of DOHS and Michelle Markley to attend the next meeting so that a strategy for integrating environmental elements into the content of these trainings can be determined.

Don Wilson informed the working group that there is a chemical safety training but that it has not been executed recently. He took action to send it to Robin Hirschhorn this training so that it could be reviewed by the working group.

Two recommendations were also discussed:

1. Convert waste disposal guide content into procedures
2. Include training or links to training on NEMS web site

In conclusion, the working group determined that lab-related operational controls are available in several trainings, and the group needs to determine how and where to integrate environmental elements.

Action Items:

Action Item	Responsible Person(s)	Due Date
1. Working Group members should send any procedures that address environmental issues to Kristen Peters (peters_kristen@bah.com) so they can be posted on the NEMS community portal site	Working Group	Friday, January 5th

Action Item	Responsible Person(s)	Due Date
2. Provide Kristen Peters with contact information of lab staff who should be or would like to be involved in the working group	Working Group	Friday, January 5th
3. Tim Killian to work with Dawn Walker to determine if the working group can review the procedures in the Lab Managers Manual and make recommendations.	Tim Killian, Dawn Walker	Prior to next meeting
4. Wendy Rubin to review this training to determine if there are any issues or missing information related to radioactive waste.	Wendy Rubin	Prior to next meeting
5. Don Wilson and Charlyn Lee to review the training for issues or missing information related to the environment.	Don Wilson, Charlyn Lee	Prior to next meeting
6. Don Wilson to send Robin Hirschhorn the chemical safety training	Don Wilson	Friday, January 5th

Next Meeting:

The working group will meet every third Wednesday of the month from 1:30 to 2:30 PM. However, the next meeting may not occur on this schedule since it will be dependent upon the availability of key participants, including Polly McCarty, Michelle Markley, Swati Damle, Wendy Rubin and Don Wilson/Charlyn Lee. The next meeting will be focused on the identification of training needs. A meeting request will be distributed via email once the meeting date and time has been confirmed.



OBJECTIVES STATUS

As of January 2006

ENVIRONMENTAL ASPECT	5-YEAR GOAL	2005 OBJECTIVE	STATUS	VERIFICATION
Air Emissions	1. Decrease NOx emissions by 20%	1. Study the potential to retrograde boilers with ultra low NOx technology.	Objective met. Research was conducted by speaking with technology vendors, on-line research of technical specifications, and conversations with experts. Determined feasible from a technological viewpoint.	Study available through Mark Miller, DEP
		2. Write policy requiring 100 % use of natural gas during Ozone Depleting Season to eliminate use of fuel oil #2.	Objective has not been met, but it is still under consideration and will remain an objective for 2006.	N/A
	2. Controlling Ethylene Oxide Emissions throughout the NIH campus	1. Inventory ethylene oxide sterilizers.	Objective met. The inventory was completed by competent individuals.	Inventory available through Mark Miller, DEP
	3. Reducing NOx Emissions from Emergency Generators	1. Study the potential use of natural gas for emergency generators (conversion and new units).	Two of the four targets for this objective have been met.	Available through Al Parrish, DPM/FOB
	4. Reducing CO Emissions	1. Study potential reductions in CO and identify appropriate % reduction goal.	Three of the six targets for this objective have been met.	Available through Mark Miller, DEP
	5. Reduce Ozone Depleting Substances Emissions	1. Inventory bulk CFC sources.	Objective met. This inventory was completed by competent individuals.	Available through Jim Powers
Air Emissions & Natural Resource and Raw Material Consumption –	1. Expand the Use of Alternative Fuels, including contractor vehicles	1. 5% Reduction of petroleum-based fuel usage by September 2005.	Objective met.	Available through Mark Minnick
		2. Draft policy for purchasing alternative fueled vehicles.	Objective met.	Available through Mark Minnick

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NIH Environmental Management System (NEMS)

Document Number: TBD

Date Revised: 6/2/06

Revision Number: 0

Revise by: 6/2/07

ENVIRONMENTAL ASPECT	5-YEAR GOAL	2005 OBJECTIVE	STATUS	VERIFICATION
Fossil Fuels	2. Expand Participation in the Transportation Programs	1. Expand Participation in the Transportation Programs by 2%.	Objective met.	Available on the NEMS Portal or through Gary Freeman
Chemical Waste	1. Develop/Improve/Update Program Management Tools	1. Revise NIH Pollution Prevention Plan.	Objective met. Plan is revised.	Plan available through Swati Damle
	2. Reduce Disposal of Unused Chemicals by 30% by 2009	1. Develop and implement mechanism for identifying annual volume of unused chemicals processed for disposal.	Objective met. Tracking system has been procured.	Tracking system procurement information available through Don Wilson
	3. Reduce Disposal Rates of NIH Target Chemicals	1. Define Criteria for Identifying Target NIH Chemicals.	Objective met. Criteria have been developed.	Criteria available from Ed Rau
	4. Decrease Disposal of Hazardous Drugs at NIH Campus	1. Identify aspects and impacts of pharmaceutical R&D, use and disposal on the NIH Campus.	Objective has not been met, but it is still under consideration and will remain an objective for 2006. It will be proposed to the future Clinical Working Group for consideration.	N/A
Construction Debris	1. Increase Recycling of Construction and Demolition Waste	1. Maintain commitment to start program in 2006.	Program planned to start in 2006.	N/A

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Ecological Disturbance	1. Maintain compliance with NEPA and mitigate or minimize the NIH's environmental impacts from actions it initiates.	1. Initiate follow-up inspections of mitigation measures that the NIH commits to in its EAs or EISs	Objective met.	Available through Ryan Bayha
Energy Consumption	1. Reduce energy consumption by 25%	1. Maintain energy consumption (BTU/GSF) at the 20% reduction level from revised 1990 baseline (section 203).	Objective met.	Available through Greg Leifer, DPM/UOB
	2. Increase renewable energy consumption to 2.5% of total facilities energy consumption	1. Investigate purchasing renewable energy.	Objective met. Purchased 3% in renewable energy.	Available through Greg Leifer, DPM/UOB
	3. Reduce source energy	1. Develop plan to activate steam turbine generator.	Objective met. Proposal underdevelopment.	Available through Greg Leifer, DPM/UOB
General Waste	1. Increase Recycling of General Solid Waste	1. Develop plan for conducting solid waste assessment in 2006	Objective met.	Available through Don Wilson
	2. Increase electronics recycling at NIH campus	1. Maintain commitment to start program in 2006.	Program to start in 2006	N/A

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Liquid Discharges to Surface and/or Groundwater (Stormwater) & Soil Erosion	1. Promote Stormwater Management Goals thru Training and Awareness of Stormwater Pollution Prevention Programs	1. Develop Training Program and Begin Implementation.	Two of the five targets for this objective have been met. Training Target Groups A and B have been identified. Training Target Group C not yet identified. Training Plan not yet developed.	Available through Clarence Dukes and Ron Wilson
	2. Provide Awareness & Mechanism for Voluntary Stormwater Pollution Prevention Activities	1. Conduct Five (5) Strategic Community Outreach Activities.	Four of the five targets have been met. Storm drain stenciling target not yet completed.	Available through Ed Pfister and Ron Wilson
	3. Prevent Sediment Loads into the NIH Stream and Waters of the State	1. Draft the NIH Storm Water Policy.	Objective has not been met. Initial planning discussions have taken place.	N/A
		2. Create Suspect Discharge Response Program.	Two of the three targets for this objective have been met. Discharge hotline number has been established and signage produced. Discharge Response Program not established.	Available through Ed Pfister
		3. Conduct Storm Water System Mapping/Monitoring.	One of the three targets for this objective has been met. NIH storm drain system map complete. Periodic monthly monitoring of storm drain/headwall is being conducted (not weekly as planned); Field screening techniques not yet developed. MEO/Reorg. has impacted the timeline for completion of this target.	Available through Lynn Mueller

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		4. Define Contractor Responsibility for Sediment Control on New NIH Construction Projects >1 acre	Objective has not been met. Successfully implemented Transfer of Authorization (TA) mechanism for all projects in CY 2005 (handled in the design review phase); additional support through formal NIH stormwater policy is required to complete this target.	N/A
	4. Minimize Redevelopment Impact of Stormwater Runoff From Impervious Surfaces	1. Finalize NIH Forest Plan.	Objective has not been met. Draft Forest Plan completed. Forest Plan not finalized.	N/A
		2. Improve NIH Storm Water System through Capital Improvements.	Objective has not been met. No targets have been full met. Stormwater banking 90% complete; MOU with MDE to be finalized in February 2006; Final agreement and construction plans for Stony (South) Creek Pond approximately 75% complete.	N/A
		3. Develop & Implement New Storm Water Pollution Prevention Plan (SWP3)	Objective has not been met due to pending state issuance of NPDES Permit. Revised SWPPP outline complete, awaiting issuance of NPDES Permit.	N/A
Medical Pathological Waste	1. Reduce Medical Waste Shipped for Off-Site Incineration by 75% by 2009.	1. Identify alternatives to of-site incineration	Objective met. Study completed.	Study available through Don Wilson
Natural Resource and Raw Material Consumption - Water	1. Reduce water consumption	1. Finalize investigations into previously identified opportunities to reduce water consumption.	Objective was met.	Available through Greg Leifer, DEP

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Radioactive Waste	1. Reduce off-site disposal of liquid scintillation vials	1. Collect baseline data for liquid scintillation vial disposal at NIH	Objective met. Data collected.	Data available through Wendy Rubin
Wastewater (Liquid Discharges to Sanitary System)	1. Improve quality of Waste Water discharge from NIH Bethesda Campus	1. Maintain the Waste Water discharge within the pH range of 6-10	One of the four targets for this objective has been met. Equalization basins added; Consolidated wastewater outfall construction 90% complete; Awareness campaign for use of labs/acids in labs not yet complete; Water chemistry modeling approximately 30% complete.	Available through Mark Miller
		2. Install and maintain neutralization/equalization systems as lab projects are implemented	One of the three targets for this objective has been met. Draft policy 10% complete; Systems installed in 100% of new construction projects (90% target exceeded); Design and performance standard enhancement 30% complete.	Available through Bob McDonald
		3. Investigate existing procedures/policy for the Operation and Maintenance (O&M) of neutralization/equalization systems	One of the two targets for this objective has been met. Responsible parties for O&M of neutralization/equalization systems identified; Requirements for evaluation of global NIH O&M (of Neut./Equal. Systems) policy not complete.	Available through Mickey Vaughn
Wellbeing of Building Occupants & Energy Consumption & Construction Debris	1. Design a Healthy Sustainable Buildings Program for the NIH Bethesda Campus	1. Establish existing sustainable building program baseline (design criteria)	Objective met.	Available through Terry Leland
		2. Develop NIH sustainable building program criteria and rating system.	Objective met. Draft criteria and rating system completed.	Available through Terry Leland

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& Liquid Discharges to surface and/or groundwater		3. Review and revise existing policies to deliver established goals.	Review was completed. Revision have not occurred.	N/A
		4. Establish plan for detailed campus wide, building-specific analysis.	Objective not met.	N/A
		5. Survey CRC Building occupants as part of case study of CRC.	This objective should be removed.	N/A
	2. Implement a Healthy Sustainable Buildings Program for the NIH Bethesda Campus	1. Incorporate Level 1 recommendations for design and construct requirements.	In progress.	Contact Kenny Floyd for latest status and verification.
		2. Identify and document initial barriers to implementation and strategies for resolution.	Objective met.	Available through Terry Leland
		3. Adopt NIH sustainable building program criteria and rating system	This objective was not met.	N/A
	3. Measure the performance of the NIH Healthy Building Program	None	N/A	N/A

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Standard Operating Procedures (SOP) Suggested Topics for Manual

Status Report
6-5-2006

Human Resources

- **Employee Assistance Program (Worklife)**
- Equal Employment Opportunity Program
- Conflict Resolution
- Human Resources (NIH)
- Personnel Policies and Records
- Work and Family Center (NIH)
- I.D. Cards (NEDS)
- Keys & Locks
- **Parking Permits**
- New Employee Orientation Checklist
- Ombudsman

Procurement

- Central Storeroom, NIH Supply Catalog, DELPRO, Self Service Stores
- Purchasing a Biosafety Cabinet (BSC)
- Purchasing
- **Outside Sources**
- IntraMall

Computer Hardware, Software and Maintenance

- Computer Services (Center for Information Technology (CIT) contact information)—help desk, phone, email
- Help Desk Information Lines
- Property-addition, loan, transfer, loss/damage = surplus, passes, inventory, storage (of equipment in warehouses)

Emergencies

- Emergency Management Plan
- **Emergency Employees**
- Evacuation Procedures
- Fire Department-Emergency (emergency preparedness)
- Fire Monitor
- Emergency phone numbers, non-emergency phone numbers, emergency listings, & emergency backup telephone system

- Make-up Fire & Emergency Evacuation Drill Evaluation
- Emergency Shower Stations
- **NIH Emergency Management/Continuity of Operation Programs (EM/Coop)**
- **Police**

Laboratory

Safety

- Safety Committee Members
- Police—contact phone number, who to call to open doors if locked out
- Red Alert Staff
- GAS-CO₂, N₂, etc.
- **Centrifuges**
- **Chemical Hygiene Plan**
- Chemical Storage
 - Flammable; acids/bases; organics/ where & how high you can put things; shelves, access ways, hallways
- Chemical waste information
- Containers available
- Electrical & Equipment Safety
- Environmental
- **Ergonomics**
- **Gas Cylinders**
- Introduction
- Laboratory facilities & physical safety
- Latex Program
- **Occupational Medical Services**
- Occupational Safety & Health Administration
- Other Equipment
- Pest
- Polarity and Ground Checks
- Safety Equipment & Personal Protection Equipment
- Standard Practices
- Waste Disposal
- Formaldehyde Fact sheet & Training Aid
- Eyewash test worksheet
- Memo: Proper Management of Chemical Waste in Laboratories

Specimen Collection, Handling and Transportation

- Specimen Collection
- Specimen Handling
 - Radioactive Specimens
- Specimen Transportation
- Specimens received from outside NIH

- Resolution of Problems with Specimen Procurement, Transportation, and Handling
- Packaging and Shipping Laboratory Specimens to Outside Locations
 - Marking and Labeling
 - Federal Express Small Package Delivery (including non-infectious diagnostic material)
 - Federal Express Domestic Non-infectious Diagnostic Material that is not shipped with carbon dioxide, solid (dry ice) or liquid nitrogen
 - Domestic U.S. Postal Service
 - Radioactive Specimens
 - Freight Forwarding Section
- Training Requirements for Parking and Shipping
- References
- Shipping Diagnostic Specimens Training Evaluation

Animal Care

- Animals-Services (transport in and out), protocols, ordering, training, etc.

Equipment

- Equipment rental, repair, etc.
- Glassware Washing
- Ice (dry, etc.)—ordering, etc.
- Moving (equipment)—necessary clearances

Laboratory Maintenance

- Maintenance and Function Checks
- Building & Engineering Services—contact phone numbers for maintenance problems, work requests, maintenance

Protective Gear

- Management, protective clothing, radiation safety (including monitoring, dosimetry), waste handling & disposal, Certification of safety equipment, certification of labs

Laboratory (General)

- Laboratory Information System
- Housekeeping—contracted company, contact project
- Reference Laboratories
- **Forms**

Education

- Continuing Education
 - Foundation for Advanced Education in the Sciences (FAES)
 - Workshop and Lectures
 - Book Store (mention Amazon)
 - NIH Library Electronic Resource Classes
- Training
 - Ethics
 - Computer Security
 - Animals
 - General lab
 - Purchase Card (credit card training)
 - Shipping
 - Controlled substances
 - CIT courses

Miscellaneous Topics

- Art Services - poster, slides, etc.
- Division of International Services (DIS) (Fogarty)
- Ethics - consultation, etc.
- Forms (reference NIH website)
- Medical Art Services-posters, slides, etc.
- References
 - NIH Phone Book
 - Delpro Instructions (on-line)
 - Existing manuals
- Shipping material-how to, regulations, etc.
- Telephone service
- Transport
- Travel
- Recycling Program
- Technology Transfer

-  (Green) Completed Chapter
-  (Blue) Reviewed by OMA
-  (Orange) Submitted to OMA
-  (Yellow) Drafted and being reviewed by subcommittee
-  (Red) No action



NEMS LABS WORKING GROUP

SIGN-IN SHEET

Wednesday, November 29, 2006

Building 45, Room D

1:30 - 2:30 pm

Initial HERE if Present	Name	Affiliation	E-mail	Phone Number	Please provide your JOB FUNCTION (as it relates to this working group)
	Broadnax, Ina	NHLBI	ib21v@nih.gov	301-496-2157	Deputy Director, Intramural Research
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