



Meeting Minutes
NEMS Joint Green Team Leads Council and
Sustainable Lab Practices Working Group Meeting
Wednesday, June 16, 2010
1:00 – 3:00 pm
Building 31, Room 10 (6th Floor, C Wing)

Objectives

- Identify successes and lessons learned from the NIH PaperFree Day
- Identify management objectives and initiatives through review of ORF Presentation on Sustainability to EO Strategic Planning Meeting on June 15
- Identify a strategy for deploying the toxic chemical use reduction initiative

NEMS Update

The Executive Officer strategic planning meeting was held yesterday and Dan Wheeland, Director of ORF, gave a presentation on the NIH Sustainability Goals, the NEMS, and NIH's overall greening efforts (Attachment 1). The accomplishments of four Green Teams were highlighted. The EOs were very engaged and it was great visibility for the Green Teams. See the presentation for information on the HHS's Sustainability Goals and other initiatives. For those who are new to the NEMS and NIH Goes Greener, please review the presentation for background information as well.

There is a proposal in front of Colleen Barros for a Green Awards Program modeled after the HHS Green Champion Awards. They include a grant-type award given out to fund green ideas. Please review those slides and provide feedback on what you would/would not like to see. It was noted in the EO meeting that we should be wary of just another awards program to "pat ourselves on the back" and instead try to use it as an incentive for behavior change.

Please also note the fun activities (including an energy bike that generated energy to run a fan and light) that you may want to include at your next event.

Walt Mitton (NIDDK) noted that the one thing that didn't come out from the Green Team panel was how much the ICs have begun working together and sharing best practices.

Brad Moss reminded everyone that this is the last chance if you want to order light switch covers.

PaperFree Day and the Paper Reduction Campaign

PaperFree Day feedback was primarily positive (see Attachment 1). However, the point was made that too many periodicals are printed and distributed. Brad Moss provided some background on the excess number of periodicals distributed. ORS oversees the distribution of mail. The number of periodicals delivered is tied to the number on record for that mail stop code. If your office or lab has fewer people than in the past, you should update the number assigned to your mail stop code. For instance, if your lab used to have 15 people and now only has 7, you will continue to receive 15 NIH Records, Catalysts, and R&W newsletters until you correct the number with mail delivery.

Several leads mentioned that they had spoken to the NIH Record to ask them to reduce the number of copies printed, but encountered some resistance. It appears that even if the mail stop codes are corrected and fewer copies of the periodicals are needed, the copies will still be printed even if they go to recycling (or worse, trash). The question was asked why they can't just post internal newsletters on SharePoint and use a hit counter to monitor the number of times it is downloaded. The "yellow sheet" is now completely online so there is precedent for online information. Others felt that this is a good option for some but others like to read periodicals in hard copy.

Walt Mitton (NIDDK) mentioned that he has arranged for them to receive 1 copy of each periodical which then they pass around to the staff.

Brad Moss assured members that reduction in numbers of hard copies would not negatively impact jobs (mail delivery staff).

There was general agreement that:

- The Council would like to address the issue of excess delivery of NIH periodicals,
- The objective is to reduce the number of printed copies and not eliminate them,
- Individuals or Green Teams should continue to feel free to contact the periodical staff to communicate their concerns, and
- The Council as an entity would like to voice its collective concern and willingness to work on a solution.

The decision was made that Brad Moss would draft a proposed letter that once agreed to by the Council, could be signed by Council members, and distributed as appropriate. Green Team Leads that felt comfortable doing so, could sign. Whether signatures are representing individuals or Green Teams still must be decided. There was also a recommendation that Green Team Leads not only discuss this effort with their Green Teams, but also with their IC leadership since it may be interpreted to have the support of the ICs.

Lesson Learned from PaperFree Day at NIA:

Rebecca Ferrell (NIA) reported that the EO sent out an email in support of PaperFree Day and suggesting that staff turn off their printers for the day. CIT went ahead and disabled printers so people couldn't print even if they needed to. It resulted in 100% awareness but they have had to

do a significant amount of damage control and it resulted in a negative feeling towards the entire event.

Toxic Chemical Reduction Initiative

Important feedback on the lab greening initiative can be found in the April/May issue of *The NIH Catalyst* (http://www.nih.gov/catalyst/2010/10.04.01/catalyst_v18i2.pdf). Be sure to read it. Some key points for addressing lab greening:

- Don't like mandates to eliminate specific chemicals,
- Looking for opportunities for peer networking,
- Reduced lab budgets are a barrier to buying green,
- Lack of technology can be a barrier, and
- NEMS recommendations can be too general.

The Sustainable Lab Practices Working Group has been working for several years on lab greening initiatives and now that toxic chemical reduction is an objective of the Council as well, this meeting is to see how the Council can support the Working Group to move the objective forward.

The Working Group developed a strategy for deploying the toxic chemical reduction initiative (Attachment 2) and helping to address the issues noted above. The strategy includes mini-fairs (peer networking), an online tool (peer networking), the awards program (to provide a source of funds for green purchases), and the setting, tracking, and reporting of toxic chemical reduction objectives.

There was general support for the strategy.

A suggestion was made to work with Scientific Interest Groups (SIG) such as the immunology one. They could be used as a vehicle for outreach. Also, they have events which might host a "green table" or mini fair.

It was suggested that a "model" of the mini fair be developed so that it can then be used at different locations, times, and events -- rather like a road show.

It was also suggested that the inventory chemical checklist used for safety purposes also might be useful as a reporting tool.

The post docs were suggested as a target group for outreach as well as the organizations that oversee orientation of new staff. A one-page handout was suggested for outreach to new employees. Guidance will also be needed for labs to use in setting their objectives.

It was noted that a NEMS online refresher training is being developed.

A request was made to discuss planning for America Recycles Day. Beth Osterink agreed to discuss at the next meeting.

A comment was made that NIH hasn't a large, very exciting, "green" project to use as a way to garner attention for the greening efforts. Other members felt that there were several green projects and that NIH simply needs to increase the outreach on these projects and better promote NIH's environmental accomplishments. Mentioned were:

- Solar Panels: <http://www.nems.nih.gov/outreach/nemsnews/NEMS%20News%20March%202010.pdf>
- The NIH Library Green Terrace: <http://nihlibrary.nih.gov/Pages/GoingGreen.aspx>
- Porter II Building: See attached information sheet (Attachment 3).

It was also noted that the Department of Environmental Resources is developing an Environmental Report which will highlight many of NIH's environmental accomplishments.

Next Meeting

The next meeting will focus on the objective of a *Lights Out Campaign* and planning for *America Recycles Day* (November 15). The meeting will be held on July 21 at 1:00pm in Building 31, Room 7.

Action Items

Action Item	Responsible Person(s)	Due Date
1. Consider a meeting focused on baselining and tracking of data.	Robin Hirschhorn	July 21, 2010
2. Draft proposed letter/statement on Council's interest in the reduction of hard copies of NIH periodicals.	Brad Moss	July 12, 2010
3. Obtain feedback from Green Teams (and IC leadership, if appropriate) on support of a letter/statement stating the Council's interest in the reduction of hard copies of NIH periodicals.	All Green Team Leads	July 21, 2010
4. Obtain feedback from Green Teams on the proposed Green Awards Program.	All Green Team Leads	July 21, 2010
5. Develop a one-page new employee handout for orientations.	Robin Hirschhorn	July 21, 2010
6. Schedule first 3 mini fairs for lab greening.	Lab Working Group	July 21, 2010
7. Prepare guidance for lab objectives.	Linda Thompson/Kaz Okumura	July 21, 2010

Attachment 1



Sustainability

Presented by: Dan Wheeland
Executive Officer Meeting
June 15, 2010

1




Background

- Follow-up from January 5, 2010 briefing regarding EO 13514
- Many sustainability goals are within control of ORF, but several require strong IC support
- Agenda:
 - Goals in HHS Sustainability Plan: Dan Wheeland
 - Sustainability Recognition Programs: Dan Wheeland
 - Break and Hands On Demonstrations
 - Energy Bicycle
 - TranShare, Van Pools
 - Recycling: Terry Leland
 - IC Panel: Best Practices and Lessons Learned

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Office of Research Facilities

How We All Feel: Our Plates Are Full



A cartoon by Larson depicting a classroom scene. A man with glasses and a white shirt stands at the front of the room, addressing a group of students seated at desks. One student in the center has their hand raised. The man at the front has a slightly exasperated expression. On a desk in the foreground, a book titled 'ALGEBRA' is visible. A clock on the wall shows the time is approximately 1:50. The caption below the cartoon reads: "Mr. Osborne, may I be excused? My brain is full."

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Office of Research Facilities

Governing Legislation

- Energy Policy Act (EPA 1992) – Set standards for water efficient fixtures and authorized the use of Energy Saving Performance Contracts
- Energy Policy Act (EPA 2005) - Requires agencies to meter electricity, purchase a portion of their electricity from renewable resources, procure energy efficient products and sets Federal building design and construction standards
- Energy Independence and Security Act (EISA 2007) - Requires agencies to audit their facilities each year, set more stringent design and construction standards, requires metering steam and natural gas and permanently authorizes Energy Saving Performance Contracts

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Executive Orders

- EO 13423 (January 2007)– Establishes Environmental Management Systems and sustainable practices; sets water use reduction goals, increases the energy reduction goals and requires one-half of the renewable energy purchased to be from new sources
- EO 13514 (October 2009) - Federal Leadership in Environmental, Energy and Economic Performance. Calls for Federal agencies to lead by example regarding Sustainability. This EO outlines expanded requirements for:
 - Accountability and Transparency
 - Water Efficiency
 - Strategic Sustainability Performance Planning
 - Electronic Products and Services
 - Greenhouse Gas Management
 - Fleet and Transportation Management
 - Sustainable Buildings and Communities
 - Pollution Prevention and Waste Reduction
- Memorandum for Heads of Executive Departments and Agencies (June 2010) mandating disposal of unneeded real estate, cutting operating costs, improving energy efficiency and consolidating data centers

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National Academy of Sciences May 19, 2010

- “As part of its most comprehensive study of climate change to date, the National Research Council today issued three reports emphasizing why the U.S. should act now to reduce greenhouse gas emissions and develop a national strategy to adapt to the inevitable impacts of climate change. The reports by the Research Council, the operating arm of the National Academy of Sciences and National Academy of Engineering, are part of a congressionally requested suite of five studies known as America's Climate Choices.”
- "These reports show that the state of climate change science is strong," said Ralph J. Cicerone, president of the National Academy of Sciences

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Other Aspects

- Rear Admiral David Titley, Navy's Top Oceanographer:
 - "Climate change is not coming. It's here."¹
 - A related issue: ocean acidification, the "silent partner" of climate change: ocean acidity levels changed more in the past 150 years than in the previous 500,000 years
- Health Impacts of Climate Change; sort of a two-fer in terms of our interest in this topic...NIEHS, for example, has special interest in this topic.

1. Federal Times article of June 7, 2010. Page 8.

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Categories or "Scopes" of Greenhouse Gas Emissions

CO₂ SF₆ CH₄ N₂O HFCs PCFs

SCOPE 1
DIRECT

SCOPE 2
INDIRECT

SCOPE 3
INDIRECT

PURCHASED ELECTRICITY FOR OWN USE

FUEL COMBUSTION

COMPANY OWNED VEHICLES GOV'T

PRODUCTION OF PURCHASED MATERIALS

PRODUCT USE

OUTSOURCED ACTIVITIES

EMPLOYEE OWNED VEHICLES

CONTRACTOR OWNED VEHICLES

WASTE DISPOSAL

EMPLOYEE BUSINESS TRAVEL

Scope 2: Emissions from utility/energy production not at the NIH campus	Scope 1: Emissions from the direct activities of the NIH campus	Scope 3: Indirect emissions from NIH including transportation, waste disposal, supply chain, etc.
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Principal HHS Goals: ORF Lead, IC Support

- Reduce energy consumption by 10.4% by 2020 relative to the 2008 baseline (Greg Leifer, ORF) However, this will require strong IC support. *Example, allow temps in admin buildings to drift on weekends in summer and winter.*
- Reduce water use annually by 2% (total of 20%) by 2020 (Greg Leifer, ORF). *ICs can assist by supporting no-mow areas, such as in perimeter buffer.*
- Reduce Scope 3 emissions for transmission and distribution losses from purchased electricity by 7.5% by 2020 (Robert Bove, ORF)
- Achieve a 50% or higher solid waste diversion rate by FY2015 (Don Wilson, ORF)
- Achieve a 50% construction and demolition diversion rate by FY2015 (Don Wilson, ORF)
- Reduce fleet emissions by 2% by 2015 and by 3% by 2020 relative to the 2008 baseline (Mark Minnick, OLAM)
- Reduce Scope 3 emissions for contract waste (Don Wilson, ORF) and wastewater (Brian Kim, ORF) by 14.5% by 2020
- Ensure that all new buildings that begin the planning process in 2020 or after are designed to achieve zero-net-energy by 2030 (Farhad Memarzadeh, ORF)
- Ensure that 15% of existing Federal building inventory of the agency (existing and leased) meet the interagency Guiding Principles by 2015 (DPM, ORF)

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Principal HHS Goals (IC Lead, ORF Support)

- At least 20 percent of eligible HHS employees use telework and/or AWS to reduce commuting by four days per pay period by 2015. (IC EOs, IC Green Team Leads, OHR). *With Walter Reed coming, this will have an added benefit.*
- Reduce Scope 3 emissions for federal employee travel by 1% by 2020 (IC EOs, IC Green Team Leads, potential IT support for teleconferences)
- Reduce paper use and use minimum 30% post-consumer recycled paper (IC EOs, IC Green Team Leads, OLAO)
- Ensure that 95% of all new contracts including contract modifications for products and services require energy and water efficiency, bio-based and environmentally preferable content, are non-ozone depleting, and contain recycled-content, non-toxic or less-toxic alternatives (OALM, COACs, Purchase Card Holders, Card Approving Authorities, ORF, ORS (DOHS))
- Promote electronic stewardship (IC CIOs, CIT)
 - Ensure power management is enabled in 100% of HHS computers, laptops and monitors by 2015.
 - Comply with electronic product procurement guidelines
 - Ensure procurement of Energy Star and Federal Environmental Management Program-designated equipment
 - Establish and implement policies to enable power management, duplex printing, and other energy efficient or environmentally preferable features
 - Use environmentally sound disposal practices for electronics
 - Implement best practices in energy efficient management of servers data centers

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Keep on Teleworking... Dan

Office of Research Facilities

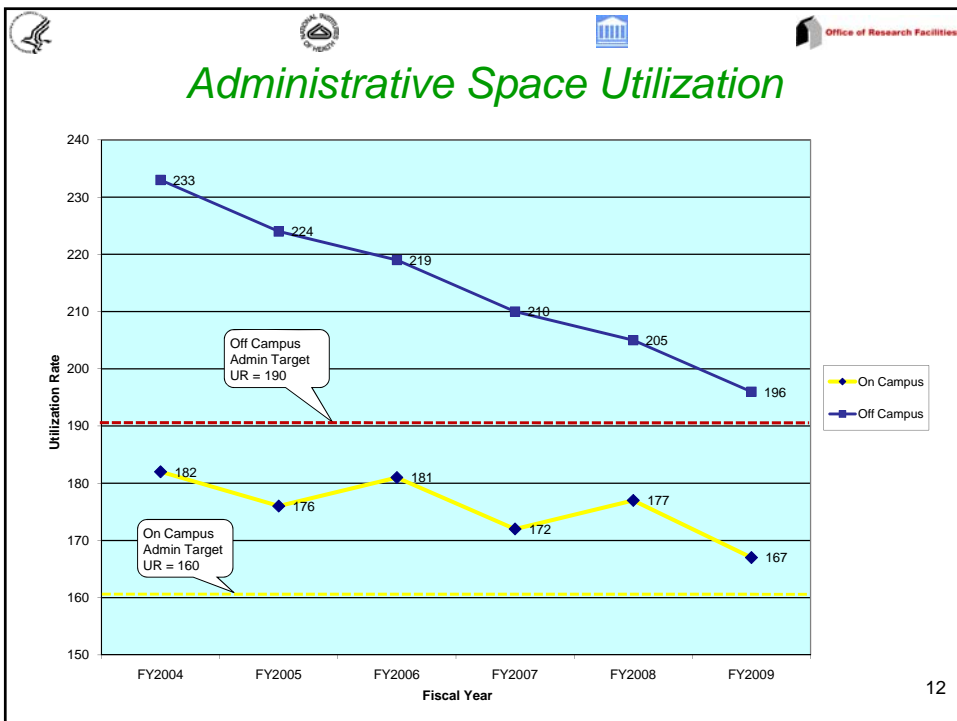
TeleWork Hoteling Best Practices: Sally Lee

- Opportunity for ICs to reduce lease space costs and redirect funds to research initiatives: NIDA, CSR, and NIMH

Hoteling Best Practices:

- Obtain buy-in/support from leadership, customers, and potential participants
- Maintain good communication at all levels (define expectations up front and meet regularly to discuss issues/concerns)
- Identify a POC within the organization to lead the effort
- Provide training for both supervisors and hoteling participants
- Ensure that the work is measurable and portable (performance metrics)
- Evaluate at various stages (pre-, mid-year, and post pilot phase)
- Provide good IT support, equipment, and telecommunications
- Use Outlook Calendar to reserve hoteling space
- Design hoteling centers/areas that mirror the remote office, in terms of IT equipment and resources

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Feedback from First NIH PaperFree Day

- "I am with a group of IRTA's and a PhD and they all report that it really made them think first, before printing. We do feel this event was an engaging way to think about resource consumption"
- "I have gone essentially paperless by using a Modbook tablet Mac in combination with Adobe Acrobat and Papers. All my scientific articles that I used to collect in file cabinets are now stored as pdfs which I annotate and highlight in silico. Access to Pubmed makes this a breeze. Easy to sort and find as well. Saves paper (and ink!)"
- "I think a lot of folks print as they feel the need to have paper copies of things with signatures because there is no known overall HHS level/OPM guidance that grants permission to keep electronic records of important documents. Without this guidance, folks feel the need to print and keep paper files for "just in case"."
- "I think you have a lot of folks who do not want to learn new technology (Sharepoint/ Office communicator) as a way to share and communicate info without the need to print it"
- "I also think there is a lack of education on information (such as the Paper Reduction Act) that enforces the requirement to reduce consumption of paper."
- "The most stirring information that I got concerned the atmospheric cost of the ink for printers. I used paper and inks to print the color display and posted it outside my office. Whether that will have any impact is problematic: for most folks there is no connection between the resources used and anything personally meaningful."
- "NIH should consider monitoring its own usage of paper product distribution of newsletters and periodicals before making such declarations."

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Suggestions by the Employee Transportation Services Organization

- Bicycle Subsidy (Currently the IRC code allow for a \$20 monthly subsidy); currently there is legislation pending to increase the bicycle subsidy to include a Transit subsidy, making the benefit amount combinable to \$120 a month
- Improve and add shower and locker room facilities for employees who cycle, jog, or walk to work
- The ARRA act increased the current pretax transit subsidy under IRC 132f from \$120 to \$230 a month with a sunset provision of December 31, 2010. Unless some type of legislative action is taken, mass transit and vanpool use will dwindle
- Implement a super carpool program where at least three or four members can qualify for a reserved 24/7 carpool space
- Require that all contracting companies that provide full time FTE equivalents to NIH offer the contractor a transit subsidy program
- Explore giving preferential parking to hybrid vehicles

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Recognizing Sustainability

- HHS Green Champion Awards
- White House Closing the Circle Awards
- NIH Sustainability Awards

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HHS Green Champion Awards

- Monetary in nature; employees received \$500 each last week
- Areas of Recognition:
 - Electronic Stewardship
 - Energy/Water Conservation
 - Environmental Stewardship
 - Green Procurement
 - Sustainable Buildings
 - Transportation/Fleet Management
- Categories of Recognition:
 - Individual
 - Small Group
 - Organization

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Recently Announced HHS Green Champions

- Energy/Water: NIEHS: Energy Savings Performance Contract at RTP: Bill Blair and Countless NIEHS and ORF employees
- Environmental Stewardship: NIH's Office of Technology Transfer Green Team: Kevin Chang, Mark Rohrbaugh
- Fleet Management: ARRA-funded fleet acquisition at NIH: Terry Schlegel (Lead), Vernon Williams, Leo Wright, Woodrow Harrison, Ulysses Mitrakas, Anthony White, Sylvester Young, Wallace Stephens, James Lewis, John Cloyd
- Sustainable Buildings: NIH's green roof/terrace at the Bethesda Campus: Suzanne Grefsheim (Lead), Mary Hash, Benjamin Hope, Bradley Otterson
- Honorable Mention:
 - The NIH Environmental Management System – Terry Leland
 - NIH's green procurement outreach for Bethesda's Building 10: Mary Hash (Lead), Benjamin Hope, Bradley Otterson

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NIH Sustainability Recognition Program

- Current rent model provides reasonable cost visibility but does not necessarily reward occupants for energy and water conservation
- This awards program could preserve simplicity of rent model yet create an incentive to demonstrate commitment to the environment
- Monetary in nature; amount would depend on nature of contribution
- Funds go to the organizational element (lab, office, clinic)
- Proposed to begin in FY11
- Would complement HHS Green Use NIH Environmental Management System (NEMS) aka Go Greener Campaign
 - IC Green Teams nominate
 - NEMS Executive Steering Committee evaluates nominations and forwards nominations to DDM
 - DDM, on behalf of NIH Director, approves or disapproves nominations
- Areas of Recognition could be tailored specifically to NIH's biomedical research mission and administrative domain as well
 - Labs (hazardous/medical/infectious waster minimization, for example)
 - Clinics
 - Biomedical facilities
 - Administrative offices
- Two types: to recognize past accomplishment or to fund a "grant" for futuristic sustainability event

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Break... and, when you come back: Hands On Demonstrations

- Energy Bicycle: Mark Radtke
- Recycling: Beth Osterink and Kaz Okumura
- TranShare: Tom Hayden
- Motion detector vampire gadget: David Willard
- No growth/stream restoration awareness: Lynn Mueller and Lonnie Darr

WattStopper Isolé IDP-3050 ® Plug Load Control & Receptacle Surge Suppressor with Occupancy Sensor

http://www.wattstopper.com/getdoc/1105/11907_Isole_12-2009.pdf

• **What is it:** Plug loads account for an increasing percentage of the total energy consumed by buildings — up to 15% in homes and 9% in commercial buildings. According to the EPA, “energy consumption by office equipment represents the fastest growing use of electricity in the country.”

• **How It Works:** The Isolé consists of an eight-outlet power strip with surge protection and a personal occupancy sensor that utilizes the latest passive infrared (PIR) technology. When the sensor detects occupancy, it turns on controlled outlets. When the space becomes vacant, the sensor turns off these outlets automatically after the preset time delay expires.

• **How Much Can You Save?** A single workspace can consume 1,500 kWh each year with an average cost of \$175 (and growing)! Add up the cost of every workspace and the amount is staggering. Isolé can dramatically cut this cost with energy savings of up to 50%.

• **Cost :** \$90.00 **Payback:** Approx. 1.2 Yrs.

• **Power Strip Features:**

- Eight outlets - six controlled, two uncontrolled
- Surge and noise suppression protects desktop equipment
- Ground protected for safety; will not operate without a ground
- Two LEDs to indicate: 1) correct wiring and grounding; 2) surge protection is functioning



• **Personal Sensor Features:** Uses latest passive infrared (PIR) technology to detect occupancy

- User-adjustable time delay off of 30 seconds to 30 minutes
- Multilevel Fresnel lens for superior occupancy detection
- 120° coverage up to 300 square feet
- Instantaneous response time

Recycling

Do not recycle materials contaminated with infectious material, hazardous chemicals, or radioactive materials

Mixed Paper

- Tissue and Paper Towel Boxes
- Paperboard (Frozen meal packaging)
- Shredded Paper
- Newspaper
- Telephone Directories
- Paper and Hardback Books
- Magazines/Catalogs
- Binders
- Post It Notes
- Envelopes
- Manila Folders
- Paper Cafeteria Trays

Commingled

- Glass Bottles and Jars (No Pyrex)
- Prescription Bottles
- Plastic Bags
- Aluminum Cans and Tin Foil
- Steel and Tin Cans
- All Plastic Bottles, Cups, and Containers
- Yogurt Containers (Rinsed)
- Food Storage Containers
- Plastic Utensils (Clean)

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Silver Recovery Chemical Waste Recycling Data (lbs)

Films, Cassettes and Silver Recovery Units/Cartridges must be collected for recycling. CallCWS.


Category	FY 2008 (lbs)	FY 2009 (lbs)
Batteries, Rechargeable	~100	~100
Batteries, AA	~100	~100
Batteries, AAA	~100	~100
Batteries, AA/AAA	~100	~100
Lead scrap	~100	~100
Fluorescent tubes	~100	~100
U-shaped tubes, Crushed	~100	~100
Fluorescent bulbs	~100	~100
U-shaped tubes	~100	~100
Mercury lamps	~100	~100
Mercury	~100	~100
Bulk elemental mercury	~100	~100
Silver, X-ray Films & Cassettes	~100	~100
Silver Recovery Unit/Cartridge	~100	~100
Glassware	~100	~100

NIH Chemical Waste Service Recycling Program

Division of Environmental Protection
Office of Research Facilities
National Institutes of Health Pick-up: (301) 496-4710 Assistance:
(301) 496-7990
<http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/>
Printed on 100% Recycled Paper







Empty Chemical Bottles, which include all glass, plastic and metal bottles that previously contained chemicals (hazardous or non-hazardous) must be picked up by CWS for recycling. Bottles should be dry and empty without chemical residue. Rinse and collect rinsate in chemical waste container. Leave cap on the empty bottle.




- Call CWS to request totes (LxWxH - 25"x20"x14" or 19 1/2"x15 1/2"x13") to collect empty bottles.
- Call for pick-up when tote is full.
- **Do not put empty chemical bottles in the Commingled Recycling bins!!!**

All Batteries must be collected for recycling by CWS. Examples are alkaline, lithium, rechargeable/coin batteries, lead-acid and all other types.




Call CWS for alkaline battery containers.



UPS (uninterruptible power source) batteries must be removed from UPS casing prior to pick-up. For battery removal call DSEIS @ (301) 496-4131.

All Fluorescent Light-tubes, compact fluorescent bulbs, mercury and sodium vapor lamps, ultraviolet and HID (high-intensity discharge) lamps and all other mercury containing devices (thermometers/thermostats) must be collected by CWS for mercury recovery.



ORF facility maintenance is primarily responsible for the replacement and management of spent tubes. Call (301) 435-8000 for assistance.






Recycling Guide: Reduce, Reuse, Recycle

Recycling Info – Call 301-496-7990 or visit <http://www.nems.nih.gov>

Paper Products in MIXED PAPER bin



Plastic, Glass, and Cans in COMMINGLED bin
Rinse food/beverage containers before recycling – No Pyrex or Styrofoam



Printer and Copier Toner Cartridges in TONER CARTRIDGE bin
Recycle packaging material in appropriate bin




\$1


NIH charities receive \$1 donation for each cartridge



Pipette Tip Racks in PIPETTE TIP RACK bin
All colors are recyclable




Printed on Recycled Content Paper - Please Recycle



Other Recyclable Items:

Batteries Call 301-496-4710 for collection

Cardboard Flatten and place in corridor or loading dock; *Do not include trash and packing materials*

Construction Debris Call 301-496-7990 for dumpster; *Minimum of 5 days advanced notice is required*

Electronics Call 301-402-6279, Division of Personal Property Services, for collection and reuse

Furniture Call 301-402-6279 for collection and reuse

Scrap Metal Place in open-top dumpsters at Bldg 10 B2 dock, behind Bldg 11, Bldg 25 scrap yard, or Bldg 13 dock

Tyvek® Garments Place on loading dock and call 301-402-6349 for collection

Wooden Pallets Place on loading dock

Do Not Recycle: Paper towels or tissues in the MIXED PAPER bin Anything contaminated with infectious, hazardous, or radioactive waste

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IC Green Team Panel

- CIT - Adriane Burton and Connie Latzko
- NIA – Iggy Francis
- NIDDK – Walt Mitton and Sylvester Jackson
- CRC – Jenny Widger
- NIDA – Maria Barhams
- OD – David Uejio

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Summary

- Hope you enjoyed this event
- Feel free to invite some of today's participants to your IC planning events
- Enthusiasm is contagious
- Please encourage participation in NEMS as more than a collateral duty; there are statutes and regulations requiring us to improve our stewardship of the environment
- Please feel free to include sustainability in one of your upcoming strategic planning events

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Sustainability Mandates for Federal Agencies

Emissions from NIH Operations

Reporting Responsibility

ORF
Primary Sources of Scope 1

Scope 1

- Natural Gas
 - Boilers
 - Cogeneration
- Fuel Oil
 - Boilers
- Dry Ice
- Compressed & Liquid CO₂
- Refrigerant Leakage
 - HVAC
 - Refrigerators, Freezers
 - High Voltage Insulator Gas
- Medical and Veterinary
 - Anesthetic gases
 - ETO Sterilizers
 - Inhaler Propellants
- Laboratory Chemicals
- Owned Fleet Operations

OM
Minor Sources, High GWP

ORS

GHG REDUCTION STRATEGIES

Strategies
<p>Personal Conservation!</p> <ul style="list-style-type: none"> • night time setbacks • turn lights/computers/copiers off nightly • reduce use of personal heating/ cooling elements • increase use of task lighting/ reduce general lighting
<p>Use less fuel oil, more natural gas</p>
<p>Increase cogeneration capabilities Alt to Boilers</p>
<p>Eliminate all use of CFC-based refrigerants in HVAC&R systems</p>
<p>Purchase CFC/HCFC free refrigerators/ freezers</p>
<p>Right sizing equipment for new construction/major renovations and during (re/retro) commissioning</p>
<p>Identify and reduce use of high Global Warming Potential(GWP) chemicals where feasible</p>
<p>Mandate the purchasing of Energy Star/energy efficient computers and other equipment</p>

Sustainability Mandates for Federal Agencies

Emissions from NIH Operations GHG REDUCTION STRATEGIES

Reporting Responsibility

ORF
Primary Sources of Scope 2

Scope 2

- Purchased Non-renewable Energy
 - Electricity
 - Steam
 - Chilled water

Strategies

Personal Conservation!

- turn lights/computers/copiers off nightly
- reduce use of personal heating/ cooling elements
- increase use of task lighting/ reduce general lighting

Increase on-site renewable energy production

Increase purchase of Renewable Energy Credits (RECs)

Right sizing equipment for new construction/major renovations and during (re/retro) commissioning

Increase cogeneration capabilities

Mandate the purchasing of Energy Star/ energy efficient computers and other equipment

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Sustainability Mandates for Federal Agencies

Emissions from NIH Operations GHG REDUCTION STRATEGIES

Reporting Responsibility

ORS
Major Sources of Scope 3

ORF
Minor Sources of GHGs

OAL

M

Scope 3

- Employee/Contractor Commuter Travel
 - Auto
 - Bus
 - Metro
- Employee Business Travel
 - Air
 - Auto Rental
 - Taxis
- Campus Shuttles
 - Inter
 - Intra
- Waste Disposal
- Animal Emissions
- Upstream Transportation of Purchased Fuels
- Leased Assets and Outsourced Activities
- Purchased Products and Materials

Strategies

Personal Conservation!

- utilize carpools/vanpools/public transportation
- reduce use of personal vehicles

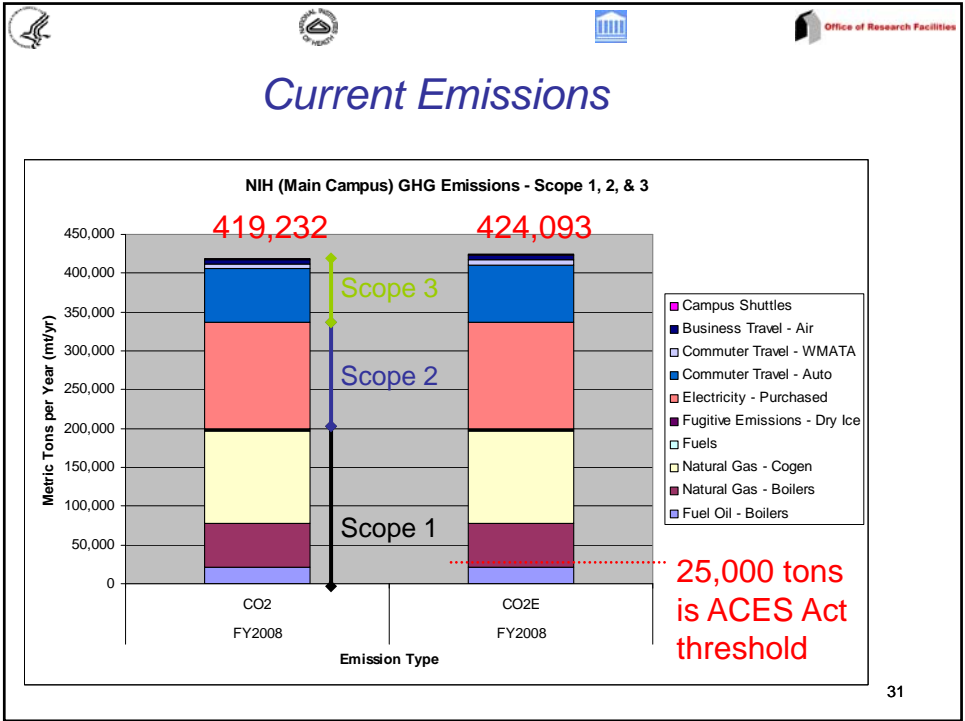
Use alternative fuel and efficient vehicles/shuttles

Maximize material reuse and recycling and select waste management methods that minimize GHG generation

Implement strategies and accommodations for transit, travel, training, and conferencing that actively support lower-carbon commuting and travel by NIH employees. Secure carbon offsets for necessary travel.

Evaluate supply chain for manufacturing and delivery of goods and services. Work with vendors and contractors to reduce GHG emissions.

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Attachment 2



NIH Environmental Management System (NEMS)

Toxic Chemical Reduction Strategy

Background

The Catalyst article on laboratory greening initiative can be found at:

http://www.nih.gov/catalyst/2010/10.04.01/catalyst_v18i2.pdf

Of particular importance is that in moving forward we be sensitive to the following comments:

1. Scientists “are troubled by mandates to eliminate certain chemicals”
2. They would like us to better exploit “peer networking by creating a resource of best practices.”
3. Acknowledge the need for technological change
4. Acknowledge the reduction in laboratory budgets
5. Scientists are concerned about possible increased bureaucracy or paperwork
6. Many NEMS recommendations have been too general

Strategy

Three-pronged approach:

ONE: Support from Management

1. Message from NIH Management -- Michael M. Gottesman, M.D., Deputy Director for Intramural Research (DDIR) – High-level, inspirational email on NEMS toxic chemical reduction initiative and asking for participation
2. Message from IC Management – Asking for specific objective of reducing 1-2 toxic chemicals and another objective (waste reduction, recycling, etc.) Will ask labs to report objective and progress to Green Team at 6 months and 1 year.
 - Offer up 6 priority chemicals identified by DEP as a suggestion, but let ICs choose ones that make the most sense to their research
 - Make sure that alternatives are offered as suggestions and not mandatory changes; informational purposes only
 - Let the researchers decide whether something is better or greener; just present the facts (nothing is perfectly green!)

TWO: Provide Opportunities for Peer Networking

1. Provide series of Greening Chemical Lab mini fairs
 - a. have a poster session/mixer where NIH researchers who have already tried alternatives share their results and vendors provide potential alternatives and pizza
2. Information sharing tools
 - a. “Clearinghouse” on NEMS website – a place where NIH researchers can share chemicals they use, alternatives they have tried, and pros and cons

THREE: Provide Financial Support for Green Alternatives

The new NIH Green Awards Program will provide a source of funding for labs that want to buy new “greener” equipment or supplies.

GT Leads Council Support

- GT leads, as appropriate, may help to obtain buy-in of EOs who then could reach out to Scientific Directors.
- GT leads, as appropriate, may assist with communications in general
- GT leads will provide assistance with tracking and reporting.

Attachment 3

Porter Neuroscience Research Center- Phase II at the National Institutes of Health

Phase II of the John Edward Porter Neuroscience Research Center [PNRC II] is the second part of a previously planned 600,000 gross square feet biomedical research facility located along the western campus edge of the National Institutes of Health in Bethesda, Maryland. The first part or Phase I, which represents approximately 45% of the facility, was completed in June 2004 and is now fully occupied by a variety of scientists from different Institutes, working in collaboration in an array of research laboratories, animal care facilities, imaging suites, offices, and associated support facilities.



View from Lincoln Drive of the Southeast corner of PNRC II

Construction of Phase II, based upon designs by Perkins+ Will Architects, is scheduled to begin in the spring of 2010 and will fulfill the original vision of a state-of-the-art, interdisciplinary biomedical research facility. Construction of this phase, which is expected to take approximately 36 months, has been made possible by special ARRA funds made available to the NIH through the Department of Health and Human Services.



A spacious, sky lit atrium will serve to unite the two phases of the PNRC construction and to amplify the energy driving today's neuroscience research at the NIH

areas for scientific symposia. The building will feature the latest technologies and offer wireless internet access throughout. Open planning and natural light are hallmarks of the design

The Phase II extension to the east of the present structure is comprised of 306,476 Gross Square Feet (exclusive of interstitial space). In addition to the open and closed wet laboratories designed to support the ongoing research activities of 28 principal Investigators spread across seven Scientific Institutes of the NIH, the building will feature a greatly expanded basement level vivarium (over 20,000 research animal cages), a new vertical vivarium stretching up through the second floor, imaging suites, vibration stable core areas, hot rooms, cold rooms, a freezer "farm" and associated scientific staff offices. These spaces are distributed over five floors each of which has been designed to align with the existing five levels of Phase 1. Shared amenities include a cafeteria, a four story, sky-lit atrium and a suite of conference and seminar spaces and public

Porter Neuroscience Research Center- Phase II at the National Institutes of Health

A GREEN BUILDING

PNRC II has been designed to achieve significant efficiencies and energy savings and is pursuing a LEED (Leadership in Energy and Environmental Design) Gold Rating, as defined by the United States Green Building Council (USGBC).

- The numerous Greening/Energy Conservation Features include
 - Photovoltaic/solar panels atop both PNRC I and PNRC II
 - use of highly chilled beam systems (in lieu of double ducted air systems) to deliver an estimated 20% energy efficiency improvement
 - Introduction of Green Roofs over portions of the roof
 - Use of pervious paving treatments along exterior walkways
 - Use of Light Emitting Diodes (LEDs) for exterior and for bench top task lighting
 - Use more cost effective and efficient laboratory lighting including a master addressable lighting control system
- Presently, NIH is investigating whether the benefits of utilizing ground source heat pump system, which, by circulating water through a series of tubes inserted deep into the earth's subsurface, are able to deliver chilled water to the refrigeration equipment at a constant temperature year round, thereby producing significant energy cost savings.



View of PNRC showing Phase I (to the left) & Phase II (to the right). Note the green roof ledges over PNRC II