

**NIDDK Green Team
Implementation of the
NIH Environmental Management System (NEMS)**

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2008

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BACKGROUND

On January 13, 2005, the NIH Director issued the policy for energy conservation and environmental protection on the NIH campus in Bethesda, MD. NIH is the single largest user of electricity in Montgomery County, MD with a utility bill of about \$4.7 million per month.

NIH's Environmental Management System (NEMS) is a comprehensive plan for specific actions to conserve energy and protect the NIH environment, both the main campus and off-campus leased facilities. Being "green" and reducing our carbon footprint is a demonstration of NIDDK's commitment to being a socially responsible organization.

NIDDK launched the NIDDK Green Team in April 2008 to coincide with Earth Day celebrations. The team developed four major goals and made substantial progress on each one by December 2008.

GOALS

1. To maximize the number of employees who take the online NEMS training.
2. To increase the number of energy saving practices implemented by NIDDK employees.
3. To improve NIDDK employee morale by recognizing and rewarding employees who implement energy-saving measures that positively impact the organization.
4. To enhance NIDDK liaison to the NIH Environmental Management System.
<http://nems.nih.gov/outreach/index.cfm>

1. Maximize the number of employees who take the online NEMS training.

Results: By December 2008, 573 NIDDK staff, or about 56%, took the NEMS online training.

The NEMS online training describes the need to cut carbon emissions from fossil fuels and the approaches and solutions developed through NEMS. Steps that individual employees can take at work and at home are outlined in the online training. NIDDK Employees were offered incentives for taking the NEMS online training. <http://nems.nih.gov/training/index.cfm>

Employees who took the online training were given their choice of one of three items with the new NIDDK logo: a green water bottle, a ceramic mug or a canvas bag. The items embodied the message of energy conservation. The water bottle is reusable and avoids the repeat purchase of water bottles. While water bottles can be recycled, surveys show that only about 10 percent actually are recycled. Recycling is better than disposing of plastic bottles in a landfill, but large amounts of energy are required to recycle.

The ceramic mug is reusable. Reuse of ceramic can eliminate paper and plastic containers that have to be recycled or discarded in a landfill.

The canvas bag can be used for grocery and other shopping instead of plastic bags, which are petroleum based products that have to be recycled or discarded in a landfill.

Results: Within three days of issuing the email, 107 NIDDK staff completed the online training. Francisco Calvo, DEA, was the first employee to receive his incentive and all incentives were distributed within one week.

In November 2008, another email went out to the 1,016 NIDDK staff and employees at NIH to encourage online NEMS training, which is mandatory. Despite some software issues that initially made accessing the training more difficult, an additional 466 staff took the online training, for a total of 573 NIDDK staff.

2. Increase the number of energy saving practices implemented by NIDDK employees.

Results: Paper Reduction Project (PRP) In an effort to reduce the volume of paper that has to be recycled at NIH, the NIDDK Green Team did a survey of the preferences of NIDDK staff for electronic vs. hard copy of newsletters and other NIH documents that are automatically distributed frequently. As a result of the survey, the following periodicals will reduce their print volume and hard copy distribution for NIDDK in 2009:

- R&W Newsletters will reduce NIDDK print volume by 30%;
- NIH Calendar of Events (Yellow Sheet) will reduce print volume by 100%;
- NIH Record will reduce NIDDK print volume by 50%; and
- NIH Phone Book will reduce NIDDK print volume by 30%.

Due in part to NIDDK's action, the NIH is no longer going to print and deliver hard copies of the NIH Calendar of Events in 2009. NIH was delivering six copies to **every** mail stop at NIH, every week. The electronic calendar allows users multiple ways to deliver and display events, as well as to add information to personal e-calendars. See <http://calendar.nih.gov/> The NIDDK Green Team Page on the NIDDK Intranet provides information on subscribing to other online periodicals. Visit <https://ddktoday.nidk.nih.gov/GreenTeam/>

Results: The NIDDK Green Team met to increase awareness of what people can do at NIH to foster energy saving practices at NIH and at home.

Monthly **NIDDK Green Hour** "lunch and learn" meetings, patterned after the NIH Green Hour, featured:

- **"Kilowatt Hours – A Plan to Re-Energize America,"** a film by Jeff Barrie was shown on May 14 at Democracy 2 and May 21 at 31/ 9A22.
- **"Get Fit and Get Green,"** Lynn Mueller, Landscape Architect, ORF, NIH, gave a walking tour of the NIH Reforestation Area at Cedar Lane Woods on June 18 at Cedar Lane and Old Georgetown Road.
- **"NIDDK Green Purchasing,"** Mehryar Ebrahimi, NLM and **"Off-Campus Recycling,"** Mark Marshall, NIH's new recycling chief, presented on July 8 at Democracy 2.
- **"Peak Oil – What is It and Why Should We Be Concerned?,"** Karl Henn, NIH Acquisitions Career Manager and Environmentalist spoke on July 15 at 31/9A22.
- **"NIH Transportation is Going Green!,"** Tom Hayden, Director, DTTS, ORS, NIH and Richard Trott, Chief of Transportation, DLS, OALM, NIH, discussed the latest Green Initiatives for NIH's fleet of government vehicles and the NIH Transportation Management Plan for Employees on October 7 at 31/9A22.
- **"NIH Storm Water Management,"** Kenny Floyd, Director, Division of Environmental Protection, described what NIH is doing to help downtown Bethesda manage polluted

storm water runoff from miles of concrete roads and sidewalks on November 8 at 31/9A22.

Results: NIDDK employees in Democracy 2 leased offices improved recycling capabilities after the NIDDK Green Team met with the building owners' representative to increase the number, size and location of recycling bins. Contrary to the conventional wisdom, there was a robust system in place, primarily because Montgomery County requires commercial property owners to recycle. The building owner representative made additional recycling bins available to NIDDK staff, reconfirmed training of the cleaning crew to get materials to the correct location and explained where the recycling pick-up is located.

Results: The NIDDK Green Team sent important information to employees working in NIDDK's Division of Intramural Research; especially those employees who routinely run agarose gels. Instead of using Ethidium Bromide (a known cytotoxin and mutagen) for nucleic acid staining, they considered using a safe and proven effective product such as GelGreen™. GelGreen™ is a sensitive, stable and environmentally safe green fluorescent nucleic acid dye designed to stain dsDNA, ssDNA or RNA in agarose gels. More information about the product is available online at http://www.biotium.com/product/price_and_info.asp?item=41004&Sub_Section=09A

3. Improve NIDDK employee morale by recognizing and rewarding employees who implement energy-saving measures that positively impact the organization.

Results: Walt Mitton, co-chair of the NIDDK Green Team, received the NIDDK Director's Award for Outstanding Achievement for his leadership and initiative in starting the NIDDK Green Team. The NIDDK Director presented the award with others at the Annual NIDDK Picnic, September 18, 2008. The NIDDK Green Team displayed a table-top exhibit, "NIDDK Green Team Tips for Energy Saving" at the annual picnic.

4. Enhance NIDDK liaison to the NIH Environmental Management System staff in order to access expert resources. <http://nems.nih.gov/outreach/index.cfm>

Results: The NIH Division of Environmental Protection established a committee of the three to four ICs that have Green Teams in order to share best practices and to experiment with new approaches to implement green policies. NIDDK is a key member of that committee.

NEMS News – NIH established a new newsletter to supplement the GREENSERVE-L@LIST.NIH.GOV. The newsletter covers actions and plans of NIDDK and other ICs who are taking action to implement green policies.

NEMS website – NIH Division of Environmental Protection invited NIDDK to populate a separate section on the NEMS website. http://nems.nih.gov/teams/team_niddk.cfm

Recommendation for 2009:

Based on the progress in Year One, the NIDDK Green Team recommends that NIDDK participate in the **NEMS Green ICs Initiative**.

NEMS is developing the document, "*Greening Your I/C: A How-To Guide*." The Guide can assist the NIDDK Green Team in developing an *NIDDK Green Policy* to track consumption of electricity, water, paper, waste generation, purchasing, and fuel consumption.

The draft Guide suggests representation from the following functions on an expanded NIDDK Green Team:

- Green Team Lead
- Lead Back-up
- Senior Manager
- Intramural Representative
- Extramural Representative
- IT Representative
- Administrative Representative
- Procurement Representative
- Communications Representative
- Animal Care Representative
- Off-Campus Representative
- Other Functional Representative 1
- Other Functional Representative 2

The NEMS support contractor (Booz Allen Hamilton Inc.) is available to assist NIDDK and we are commenting on the draft Guide. Developing the "*How-To Guide*" and the *NIDDK Green Policy* present exciting challenges for 2009.