NIH GREEN ZONE NEWSLETTER

The Newsletter of the NIH Environmental Management System

OCTOBER 2017

Saving Energy by Managing Ultra-Low Temperature Freezers

With October deemed National Energy Awareness Month and the chill of winter on the horizon, here is one way NIH is trying to conserve electricity: managing Ultra-Low Temperature (ULT) freezers. Due to a wide array of research needs, there are approximately 3,300 ULT freezers in service at NIH. Each of these ULT freezers costs NIH between $400 and $1,600 annually in operating costs and creates 3,000 lbs. to 12,000 lbs. of indirect CO_2 emissions. On July 1, 2016, NIH released Manual Chapter 26101-16 for the management of ULT freezers to promote energy efficiency in cold storage for biomedical research. This policy details how to manage ULT freezers throughout their entire lifecycle from purchase to disposal. The policy is broken down into six sections, as shown in the table to the left.

NIH MANUAL CHAPTER 26101-16	
SECTION	**SECTION SUMMARY**
1. SELECTION	When replacing ULT freezers select energy-efficient models.
2. INVENTORY	All ULT Freezers must be listed in the NIH property database.
3. PLACEMENT	Place ULT freezers with sufficient cooling and ventilation.
4. MAINTENANCE	Conduct preventative maintenance every six (6) months.
5. INSPECTIONS	Perform annual inspections to ensure compliance.
6. DISPOSAL	Dispose of ULT Freezers properly.
7. RESPONSIBILITIES	Keep electronic records of ULT inventory and maintenance.

One section of particular focus is the selection of ULT freezers. Section 1 of the NIH policy requires ICs to purchase energy-efficient ULT freezers. On May 18, 2017, the U.S. Environmental Protection Agency released an Energy Star Specification for ULT freezers. To receive Energy Star Certification, a ULT freezer must consume no more than 0.55 kWh/ft^3/day, as verified by a third-party testing facility. Manual Chapter 26101-16 is being updated to include this specification, which will require Energy Star Certification in the selection requirements. Additionally, inspections are being carried out in accordance with Section 5 of Manual Chapter 26101-16. Some questions we ask during the inspections include: is the ULT listed in the NIH property database, are there active alarms, and when was the last Preventative Maintenance (PM)? If you use a ULT freezer, please check these criteria and make sure you are in compliance with NIH policy. Energy management only works when everyone gets involved! Please read the ULT Freezer Management Policy and make sure that you are helping to reduce energy too. If you have any questions about ULT freezers and the NIH policy, please contact Mr. Jaroslav Sebek.

TAKE ACTION

2017 Green Labs Fair

The NIH Green Labs Fair took place on September 13th, 2017 from 12pm – 2pm. This event is held yearly in an effort to familiarize attendees with NIH environmental initiatives and green products. Learn about this year's Green Labs Fair to discover ways for you to contribute to the environmental goals of NIH!

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STAFF SPOTLIGHT

Meet the Green Labs Fair Planning Team

The planning process for the NIH Green Labs Fair requires much hard work and dedication to properly execute. A small team of NIH employees volunteer their precious time to make this event possible.

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NEMS TRAINING

Did you know? In 2017, NIH celebrated the opening of the NIEHS Net-Zero Energy Building 110 on the Research Triangle Park campus. Building 110 is the first Net-Zero Energy building for NIH and HHS. To learn more about how to conserve energy, please visit the NEMS Training webpage to view a short (20 minute) NIH environmental awareness training.