



Federal Green Challenge

Federal Agencies Leading by Example in Sustainable Operations

Celebrating the 20th Anniversary of America Recycles Day by Sharing Success Stories

November 15, 2017

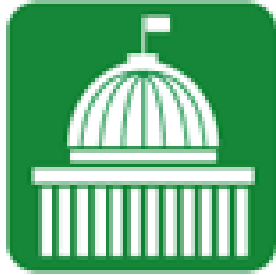
America Recycles Day 2017



Celebrating
America Recycles Day
November 15



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW




Webinar Panelists

- Catherine Hurley– Sustainability Program Manager, US DOE
Argonne National Laboratory, Argonne, IL
- Lorena Nelson, Custodial Supervisor, Indiana Dunes National Lakeshore, Porter, IN
- Chris Newman – Federal Green Challenge Regional Coordinator,
USEPA Midwest Region, Chicago, IL , Sponsor
- Marlene RedDoor – Federal Green Challenge National
Coordinator, USEPA HQ Office of Resource Conservation and
Recovery, Washington, DC, Moderator

<https://www.epa.gov/fgc>

Short Background on America Recycles Day

- **20th Anniversary of America Recycles Day!**
- Started in 1997 by the National Recycling Coalition
- Proclaimed by Presidential Proclamation most years
- 2009 forward – is a program of Keep America Beautiful - <https://www.kab.org/our-programs/america-recycles-day>
-  America Recycles Day a national initiative of **KEEP AMERICA BEAUTIFUL**
NOVEMBER 15
- More on Events: <https://americarecyclesday.org/>
- Global Recycling Day – March 18, 2018!
- Any day can be recycling day!



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



Federal Green Challenge Benefits

Federal Green Challenge

Share Contact

Join the FGC
[Why and How to Join the Federal Green Challenge](#)

National Renewable Energy Laboratory in Golden, CO

1 2

What's New

- [EPA Recognizes 290 Federal Facilities](#)
- [Executive Order 13693: Federal Leadership on Climate Change and Environmental Sustainability](#)
- [Pollinator Habitat Enhancement Metric](#)

About the Federal Green Challenge (FGC)

The Federal Green Challenge, a national effort under the EPA's Sustainable Materials Management Program, challenges EPA and other federal agencies throughout the country to lead by example in reducing the federal government's environmental impact.

- [Learn About the FGC](#)
 - [Executive Order 13693: Planning for Federal Sustainability in the Next Decade](#)
- [Join Now](#)
 - [Steps to Join the FGC](#)

FGC Target Areas

Federal agencies are challenged to make improvements in these areas:

Waste	Energy
Electronics	Water
Purchasing	Transportation

- Maximize resources & improve efficiencies; potentially save \$\$.
- Measurement system for achieving your sustainability goals.
- EPA technical assistance and resources:
 - Online toolkits, webinars, peer networking.
- Get recognized!



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW



Join the Federal Green Challenge!

- Registration, baseline and reporting system, generation of data reports - all online
- Webinars – monthly sharing experience and process
- Leverage experience, actions and resources
- Share best practices of current participants and agencies
- **FY2017 Reporting forms are open for the FY2017 performance period reporting**
- ***Reporting Deadline for FY2017 data entry: January 31, 2018***
- ***Award for Overall Materials Recovery Performance***

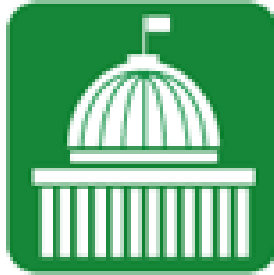


CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

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NOVEMBER 2017

ARGONNE CLEAN SPACES INITIATIVE

PROJECT HIGHLIGHTS AND LESSONS LEARNED

CATHERINE HURLEY
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Brigid Lowery, Acting Director of the Land and Chemicals Division for EPA Region 5
Presenting Federal Green Challenge Award to
Paul Kearns, Interim Laboratory Director

ARGONNE AT A GLANCE

Incorporating a unique blend of world-class facilities, science and engineering- delivering innovative research and technology



3,300

Full-time employees

\$780M

Operating Budget
FY16

2.3

Square mile campus

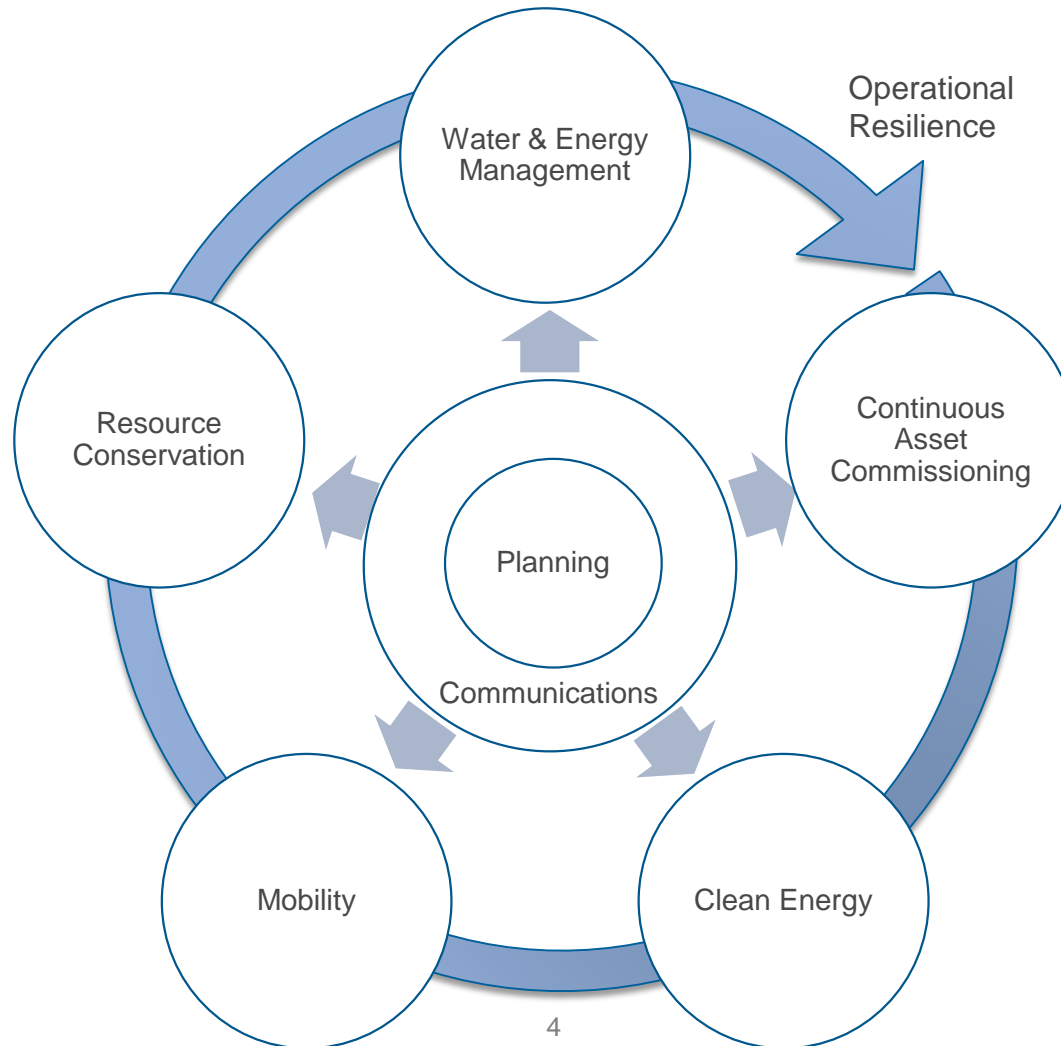


Argonne's Site Sustainability Program supports world class science and engineering research through infrastructure modernization and site occupant engagement, saving the laboratory money and improving operations.



SUSTAINABILITY STRATEGIC PLAN

Integrated approach to address sustainability goals and deferred maintenance



FEDERAL GREEN CHALLENGE AWARD



CLEAN SPACES INITIATIVE



CLEAN SPACES INITIATIVE

Cleaning out and consolidating workspaces

- Multi-year project chartered in 2016
- Supports strategic goal of providing modern and appropriate workspaces for Argonne's science and engineering research mission
- Drivers include aging facilities, evolving research equipment, and relocation of work teams
- Managed by Project Management Organization under Excess Facilities Program
- \$9M funded committed FY16-FY18



CLEAN SPACES INITIATIVE

Proof is in the picture



Argonne's Sustainability Program and other pollution prevention and waste reduction efforts benefit from the CSI. Examples include:

- Pollution prevented by removing legacy radiological and hazardous materials, and by decontaminating building surfaces and equipment.
- Excess equipment and materials removed for recycling.
- Unoccupied spaces cleaned out to assist in a broader strategy of consolidating and optimizing programmatic space use.

CLEAN OUT OF BUILDING 205 LAB AND SERVICE FLOOR SPACE

Before and after pictures



CLEAN SPACE INITIATIVE FISCAL YEAR 17 PROJECTS

Building 205, F Wing Vaults Characterization and removal of nuclear material



This activity focused on the investigation, characterization and packaging of legacy radiological material stored in the building 205 F Wing vaults. 20 shield pots and drums were opened, inventoried and characterized for the waste profile. The contents of each container was repackaged for transfer to a NWM facility for further investigation and final packaging for disposal. Total waste removed: 22 cubic feet of radiological waste



CLEAN SPACE INITIATIVE FISCAL YEAR 17 PROPOSED PROJECTS

Building 205 H125

Partial removal of Low Level Waste items



Completed the removal of legacy low level and mixed waste items from the main and second floor of room Total waste removed: 2,583 cubic feet of radiological waste.



CLEAN SPACE INITIATIVE FISCAL YEAR 17 PROJECTS

Building 315 A133 & A131 Decontamination



Completed decontamination efforts to remove areas on fixed contamination on the floors and walls and removal of contaminated piping, vault door and duct work from a former material storage vault and work room. Completed a restricted release survey of the real property to make the rooms ready for refurbishment work. A total of 741 square feet of space was made available for future programmatic reuse. Total waste removed: 430 cubic feet of radiological waste



CLEAN SPACE INITIATIVE FISCAL YEAR 17 PROJECTS

Building 206 High Bay Remove lead contaminated tank



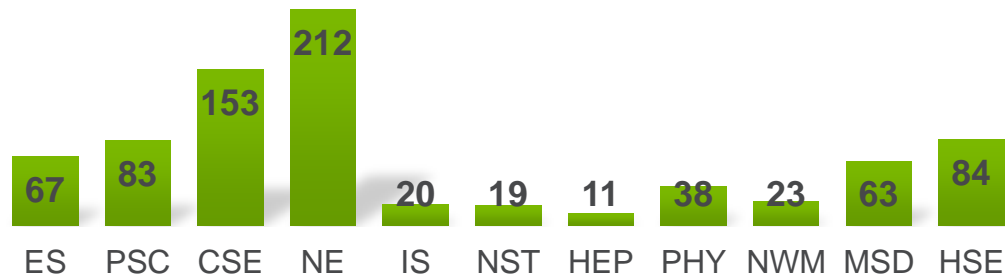
Removed and dispose of excess legacy tank used for lead/bismuth melting and heat transfer testing. Total waste removed: 75 cubic feet of hazardous waste.

CLEAN SPACE INITIATIVE FISCAL YEAR 17 PROJECT EXAMPLE

Site-wide compressed gas cylinder clean out



Number of Cylinders removed FY16-17



All excess compressed gas cylinders identified under the scope of this project have been removed from facilities Total of 272 compressed Gas Cylinders removed this year.

GENERAL OVERVIEW OF WASTE MANAGEMENT PROCESS

Coordinating efforts across subject matter experts

Plan

- Identify Locations
- Survey Contents
- Collect Data

Prepare

- Request Waste Removal
- Coordinate w/Waste Management Staff
- Collect More Data or Package Waste

Process

- Waste Management to Lead Activities
- Documentation
- Payment

KEY COLLABORATOR WASTE MANAGEMENT

Site-wide service organization

- Operates permitted waste processing, storage, and shipping facilities;
- Assists generators with management and disposition of their wastes;
- Supports facility D&D and nuclear footprint reduction projects;
- Spearheads the Laboratory's disposition efforts in the area of Unneeded Materials and Chemicals (UMCs), including reuse and recycling efforts;
- Performs asbestos and lead abatement; and
- Provides emergency and routine support for areas contaminated with radioactive and hazardous materials.

KEY COLLABORATOR ARGONNE PROPERTY EXCESS SYSTEM

Managed by the Property Management Group

- Property and Inventory Management implements the property management policy, operates the property database, and trains divisional property representatives (DPRs)
- Responsibilities include property classification, tagging, recording, inventorying, reutilization, and disposition
- Assists employees in recycling and reusing surplus equipment
- Uses internal on-line form to e-mail info to appropriate Argonne staff for reuse by other Laboratory organizations
- Controlled Sensitive Item (CSI) numbers are tracked and managed by the Property Management Group
- All property transfer requirements must be met.
- Laboratory computers must be sanitized by your IT staff before they go to their new owner.

CLEAN SPACE INITIATIVE RESULTS

Variety of waste types addressed during efforts

To date, the project has accomplished the following:

- Removed 1,686 chemical/hazardous waste items
- Removed 18,708 cubic feet of radiological waste
- Removed 714 legacy compressed gas cylinders
- Decontaminated 7,722 square feet of heavy metals surface contamination
- Decontaminated 4,653 square feet of radiological surface contamination

Specific accomplishments addressing Site Sustainability Plan Goals:

- Recycled 4,108 cubic feet of electronics waste
- Recycled 97,500 pounds of scrap metal



CLEAN SPACES PROGRAM

LESSONS LEARNED

Dedicated team and resources drive results

- Formalized program serves as hub for clean-up activities
- Leverage waste management experts and existing process to handle wide range of waste streams accordingly
- Lab leadership commitment with annual, dedicated funding
- Partnership with Building Managers to identify spaces within buildings for clean-up activities
- Completed detailed analysis and documentation at every phase of the effort, in each space including: investigation, characterization and packaging
- Be prepared for anything



AWARD PROCESS

LESSONS LEARNED

Helping to acknowledge great work of the team and organization

- Document, Document, Document!
 - Record successes through the year
 - Quantify costs, savings, benefits
- Application Process is Win-Win
 - Application process can lead to better understanding of project and potential to replicate in the future
 - Knowing data needed for awards can help inform activities and projects throughout the year
- You can't win if you don't try
 - Reapply to past awards
 - Search out new award opportunities to highlight work
- Maximize Benefit
 - In-person award ceremony (when possible)
 - Photos
 - Organization announcement

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Indiana Dunes National Lakeshore

National Park Service
U.S. Department of the Interior
Indiana Dunes National Lakeshore



Greening Indiana Dunes National Lakeshore





- **Start simple** – one switch can have huge results
- **Do your research** – quality products work
- **Be willing to experiment** – it's fun!



Electric hand dryers and microfiber cloths to reduce paper towel/wiper waste



- Product Standardization





- Keep expanding your program





Recycling Does Matter

Recycling

Please place empty
aluminum and plastic
beverage containers in
labeled recycling barrels



RESPECT YOUR BEACHES





From tires to asphalt





Plastic lids to benches



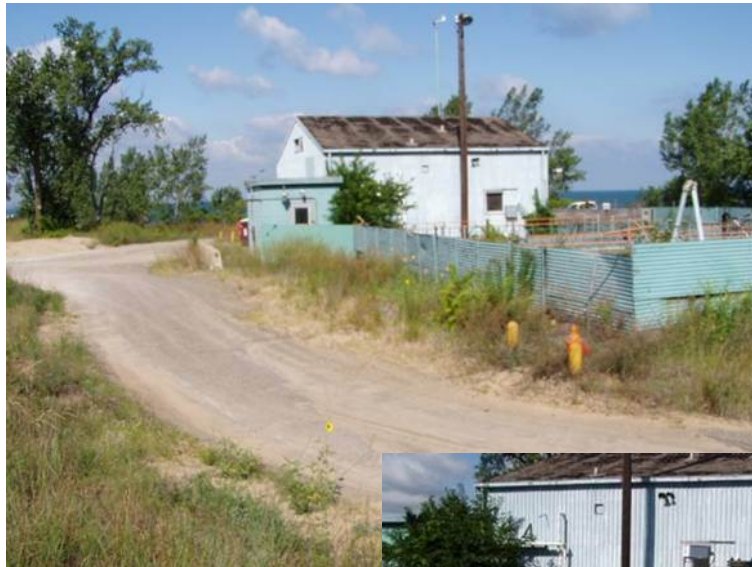


Continued success



Indiana Dunes National Lakeshore

National Park Service
U.S. Department of the Interior
Indiana Dunes National Lakeshore





Questions?

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