

2022 NIH Green Labs Program

The 2022 NIH Green Labs Program is comprised of 34 multiple choice statements. Please select your response for each statement based on the current practices in your lab using these options: “Yes: We do this” or “No: We do not do this” or “NA: not applicable.”

There are four levels of Green Lab Certification: Bronze, Silver, Gold, and Platinum as described below:

Green Lab Certification Levels	Minimum requirement to achieve the Green Labs Program Certificate
Bronze Level	Labs must reply “Yes” to at least 10 statements
Silver Level	Labs must reply “Yes” to at least 15 statements
Gold Level	Labs must reply “Yes” to at least 25 statements
Platinum Level	Labs must reply “Yes” to all 34 statements

Waste Management

The ORF Division of Environmental Protection (DEP), provides waste disposal of chemical, medical pathological (MPW), and general (solid) waste and recycling services. Key goals of the Waste Management Program are to reduce waste generation, increase recycling, and ensure proper disposal of all waste types. To remain informed about the latest waste management practices, please visit the [WRRB Outreach Channel](#) on Microsoft Teams.

1. We follow the guidelines stated in the [Waste Disposal Guide](#) to collect and dispose of the waste generated in our lab.
 - Yes
 - No
 - NA
2. We procure, use, and dispose of items and materials containing elemental mercury and mercury compounds, as stated in the [NIH Policy Manual – 3033 Procurement, Use, and Disposal of Mercury and its compounds](#).
 - Yes
 - No
 - NA
3. Before disposing of any liquid in the laboratory sink, we review the pre-approved list of chemicals in the [NIH Drain Disposal Guide](#) and if unclear/uncertain we fill out the [Application for Disposal of Specific Chemical Reagents to the Sanitary Sewer](#) to obtain approval for safe disposal.
 - Yes
 - No
 - NA

Chemical Waste Management

Chemical waste includes non-radioactive chemical solids or liquids contaminated with hazardous chemicals. For guidance on chemical waste management, please visit the [Chemical Waste](#) site.

The NIH Chemical Waste Management program provides many opportunities for chemical waste reduction through [various recycling programs](#).

4. We collect alkaline [batteries](#), [empty chemical bottles](#), liquid chemical waste, and chemically-contaminated gels in the appropriate waste containers, and dispose of them through the NIH Chemical Waste Services (contact the Division of Environmental Protection at (301) 496-4710).
 - Yes
 - No
 - NA

5. We ensure that the [NIH Chemical Waste Tag](#) is completed in its entirety as listed below to dispose of liquid chemical waste. Please check the boxes that indicate your lab's practice in filling out the items on the NIH Chemical Waste tag. For more information or questions, please contact the Division of Environmental Protection at (301) 496-7990.
 - Contact information: Name, Building number, Room number, Institute/Center name, Service request #
 - Accumulation start date printed/written clearly.
 - Identifying the hazard in the hazard pictogram (flammable, corrosive, reactive, toxic, oxidizer)
 - Chemical constituents listed/identified
 - Yes, we complete the above listed information
 - No
 - NA

6. We refer to the [Hazardous Waste Search Table](#) and the [NIH Chemical Waste Site](#) or contact the Division of Environmental Protection with any questions at (301) 496-7990 to ensure the correct hazard pictograms are identified on the NIH Chemical Waste Tag.
 - Yes
 - No
 - NA

7. We participate in the [NIH Surplus Chemical Redistribution Program](#) to distribute sealed, unused, and unexpired chemicals (with proper labels and no signs of chemical or physical change). Please contact the Division of Environmental Protection with any questions at (301) 496-7990.
 - Yes
 - No
 - NA

8. We participate in the [NIH Solvent Recovery Program](#) to have chemical solvents (ethanol, xylene, formalin, acetone) purified for our re-use. Please contact the Division of Environmental Protection with any questions at (301) 496-7990.
- Yes
 - No
 - NA

Medical Pathological Waste Management

Medical pathological waste (MPW) includes any waste with actual or perceived presence of pathogenic agents. Pathological waste includes animal carcasses, anatomical waste such as organs, tissue from humans or animals. In addition, sharps containers (scalpels, razor blades, Pasteur pipettes, pipette tips, needles, and syringes), animal bedding contaminated with pathogenic agents which cannot be decontaminated through autoclaving, and other material potentially contaminated with cytotoxic or cytostatic drug. For more information, visit the [Medical Pathological Waste](#) site.

9. We label each MPW box as “Special Handling” if it could contain the COVID-19 virus to notify the medical waste disposal staff.
- Yes
 - No
 - NA
10. When setting up the MPW box for collecting waste, we firmly fold down the flaps of the MPW box before we place two plastic bags (one inside the other) and secure the bag tops by fitting them over the flaps. For more information, please review [packaging procedures](#) in the Waste Disposal Guide.
- Yes
 - No
 - NA
11. We do not overfill our MPW boxes. A filled box should not weigh more than 40 pounds nor be more than $\frac{3}{4}$ full.
- Yes
 - No
 - NA
12. After the MPW box is filled, we prepare it for disposal by following the [packaging procedures](#) as stated below. For more information, refer to the [Waste Disposal Guide](#). Please check the box to indicate your lab’s practices:
- Tie and seal each of the plastic bags separately placed within the MPW box
 - Close the box
 - Label the top of the box with the building and room number, and the type of waste generated.

2022 NIH Green Labs Program

- Yes, we follow the packaging procedures as listed above.
- No
- NA

General Waste Management

General waste consists of materials free of any apparent pathological/infectious, radioactive, or hazardous chemical contamination. Materials considered as soft plastics are the grocery bags, Ziploc bags, air shipping pillows, all clean, dry bags, pallet/shrink wrap, and bubble wrap. Other general (solid) waste items are pipette tip racks, toner and ink cartridges, cardboard, mixed paper products, furniture, electronics, equipment, and appliances. For more information, visit the [General Waste](#) site.

13. We [recycle](#) soft plastics (e.g., grocery bags, Ziploc bags, air shipping pillows, bubble wrap) by placing them in plastic film collection boxes. Please contact the Division of Environmental Protection at (301) 496-7990 for more information.
- Yes
 - No
 - NA
14. We collect pipette tip racks, mixed paper products, and ink/ toner cartridges for [recycling](#) at designated areas. For more information on acquiring recycling bins for these items or locating the designated collection areas in your building, please contact Division of Environmental Protection at (301) 496-7990.
- Yes
 - No
 - NA
15. We surplus government-owned personal property, accountable and non-accountable properties for reutilization and recycling, through our IC Property Custodial Officer (PCO) or [Property Accountability Officer \(PAO\)](#). This includes items such as office equipment, appliances, and electronics. For more information, please refer to the [Personal Property Management Guide](#).
- Yes
 - No
 - NA
16. We recycle cardboard boxes by flattening the boxes and placing them next to the recycling bins in the hallway or in the cardboard collection bins located at building loading docks.
- Yes
 - No
 - NA

2022 NIH Green Labs Program

17. We participate in the [NIH Styrofoam take-back program](#). Please contact the Division of Environmental Protection at (301) 496-7990 for more information.

- Yes
- No
- NA

Freezer Management

[NIH Manual Chapter 26101-16](#) details how to manage ultra-low temperature (ULT) freezers at the NIH to increase freezer reliability and decrease energy consumption. Please click on the [video](#) to learn how to perform a user-level preventative maintenance. For more information, visit the [Freezer Management](#) site.

18. We manage ULT freezers per [NIH Policy Manual Chapter 26101-16](#) as listed below to increase freezer reliability and to reduce energy consumption, operating costs, and greenhouse gas (GHG) emissions. Please check the box to indicate your lab's practices.

- Conduct preventative maintenance at least once every six months
- Ensure freezers have at least 6 inches of clear space around the sides and on top.
- Register freezers into the NIH Property Management (NBS) system.
- Yes, we manage ULT freezers per NIH policy manual chapter 26101-16 as stated above.
- No
- NA

19. We participated in the 2022 [NIH Freezer Challenge](#) to practice environmental stewardship above and beyond the requirements in the NIH Policy Manual Chapter 26101-16.

- Yes
- No
- NA

20. We maintain ULT freezers at -70° C or warmer.

- Yes
- No
- NA

21. We report freezer failures in the [NIH Freezer Failure Database](#) to help identify trends in freezer reliability.

- Yes
- No
- NA

Water Conservation

The NIH Water Conservation program seeks to minimize water consumption through water usage policies, best available technologies, and operations and maintenance activities. For additional information, visit the [Water Conservation](#) site.

22. We have adopted best management practices such as planning small scale experiments, closing autoclave door after removing items to prevent loss of heat and steam; condensing autoclave loads; turning off water baths when not in use; and requesting building maintenance staff by calling at (301) 435-8000 to repair leaks and malfunctioning faucets and machines.
- Yes
 - No
 - NA
 - Other, please specify: [Insert text box]
23. We prevent inadvertent leakage of silver metal from wet lab photo processing units (dark rooms) by installing a silver recovery unit/EPAN chamber placed in a secondary container to comply with the Washington Suburban Sanitary Commission (WSSC) wastewater requirements.
- Yes
 - No
 - NA

Sustainable Procurement:

The Biden Administration released the [Executive Order 14057: Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability](#) that outlines a coordinated, whole-of-government approach, along with individual agency goals and actions, to transform Federal procurement and operations to reduce greenhouse gas (GHG) emissions and environmental impacts and secure a transition to clean energy and sustainable technologies. A few sustainable procurement and operational practices are listed below:

24. We consider less-toxic and nontoxic alternatives before purchasing chemicals and solvents used in our laboratories and review [EPA safer choice](#), [GSA Green procurement](#), [USDA bio-preferred product](#), [WaterSense](#), and Green Seal products.
- Yes
 - No
 - NA
25. We purchase lab equipment/appliances that are energy-efficient, such as [Energy Star certified appliances and instrumentation](#) or Federal Energy Management Program ([FEMP designated products](#)) per the [Federal Acquisition Regulations](#).
- Yes

2022 NIH Green Labs Program

- No
 - NA
26. We encourage our laboratory vendors to obtain My Green Lab's [ACT](#) label for laboratory products. Please contact [My Green Lab](#) for more information.
- Yes
 - No
 - NA
27. We keep an updated chemical inventory and refer to this list before purchasing an item.
- Yes
 - No
 - NA
28. We search the [NIH FreeStuff](#) website before purchasing any lab-related product.
- Yes
 - No
 - NA
29. We participate in the NIH Intramural Research Program, [Collaborative Research Exchange](#) (CREx) to utilize core facilities and shared resources.
- Yes
 - No
 - NA

Communication and Outreach

Communication and outreach are essential to the successful implementation of environmental programs at the NIH. To learn more about the communication and outreach opportunities at the NIH, please visit the [Outreach](#) site.

30. We volunteer, participate, and represent our IC at the [sustainability meetings](#). A few such meetings are the Sustainable Laboratory Practices Working Group (SLPWG), Sustainability Management Team (SMT), Green Team Leads Council Meeting (GTLC). Please email at green@mail.nih.gov to participate.
- Yes
 - No
 - NA
31. We volunteer at environmental outreach events to increase our knowledge and to help educate the NIH research community about environmental programs. A few such volunteer opportunities include Earth Day, Safety, Health, and Wellness Day, the Green Labs Fair, and America Recycles Day. Refer to the [Outreach](#) site to learn about the next upcoming event.
- Yes

2022 NIH Green Labs Program

- No
- NA

32. We [subscribe](#) to the monthly [NIH Green Zone Newsletter](#) to stay informed about NIH environmental programs. The NIH Green Zone Newsletter includes 3 articles in each monthly issue, typically a Featured Article, a Take Action article and a Staff Spotlight or Event article.

- Yes
- No
- NA

33. We collaborate with NIH staff outside of our IC or with outside organizations to promote sustainable lab practices.

- Yes
- No
- NA

34. In 2022 we have completed the [NIH Environmental Management System](#) (NEMS) Awareness Training, which informs NIH staff of their roles and responsibilities within NEMS.

- Yes
- No
- NA

Thank you for participating in the 2022 NIH Green Labs Program. Please provide your comments/feedback for improving the program.

How did you hear about the NIH Green Labs Program?

- Meeting
- Colleague (please provide name and IC in the text box below)
- NIH Intranet site
- Green Zone Newsletter
- NIH Twitter
- Other, please specify:

Open ended questions (optional):

Are you experiencing any challenge while managing chemical waste, especially filling out the chemical waste tag?

Are you interested in learning about the Medical Pathological Waste management packaging procedures?

2022 NIH Green Labs Program

Do you maintain a wet lab photo processing unit/dark room? If so, then please specify the building and room number of the wet lab unit?

Do you want to participate in the NIH Green Team Leads Council meeting and/or Sustainable Laboratory Practices Working Group?

Any suggestions for improving the NIH Green Labs Program self-assessment form?