2023 NIH Green Labs Program for Rocky Mountain Labs (RML), Montana.

The 2023 RML Green Labs Program (GLP) is comprised of 24 multiple choice statements. Please select your response for each statement based on the current practices in your lab.

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

Green Lab Certification Levels	**Minimum requirement to achieve the GLP Certificate**
Gold Level	Labs must reply "Yes" to at least 20 statements
Silver Level	Labs must reply "Yes" to at least 12 statements
Bronze Level	Labs must reply "Yes" to at least 6 statements

Waste Management

The RML Waste Management Team provides disposal of chemical, biological, 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 read the RML Waste Management Plan and email questions niaidrmlwastemanagement@mail.nih.gov.

1. We follow the guidelines stated in the RML Waste Management Plan to collect and dispose of the waste generated in our lab.
   - ☐ Yes
   - ☐ No
   - ☐ NA

2. We do not drain dispose of any liquid that is listed as hazardous according to its Safety Data Sheet (SDS). These items are tagged (see question 4) for pick-up from the Waste Management team. If uncertain, we email questions to niaidrmlwastemanagement@mail.nih.gov.
   - ☐ Yes
   - ☐ No
   - ☐ NA

Chemical Waste

Chemical waste includes non-radioactive chemical solids or liquids contaminated with hazardous chemicals. For guidance on chemical waste management, please email niaidrmlwastemanagement@mail.nih.gov. The NIH Chemical Waste Management program provides many opportunities for chemical waste reduction through various recycling programs.

3. 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 RML Waste Management team (niaidrmlwastemanagement@mail.nih.gov).
   - ☐ Yes
   - ☐ No
   - ☐ NA

4. We ensure that the RML Chemical Waste Tag is completed in its entirety as listed below to dispose of liquid chemical waste. If not completely correct, the waste will not be picked

up. Please check the boxes that indicate your lab's practice in filling out the items on the NIH Chemical Waste tag (clearly written). For more information or questions, please contact the RML Waste Management team (niaidrmlwastemanagement@mail.nih.gov).

- Contact information:
  - Name, Building number, Room number, Phone number
- Accumulation start date
- Identifying the hazard in the hazard pictogram:
  - inflammable, corrosive, reactive, toxic, oxidizer
- Chemical constituents:
  - All components listed with concentration and volume

☐ Yes
☐ No
☐ NA

Biological Waste

Biological waste includes any waste with actual or perceived presence of pathogenic agents and includes animal carcasses and organs, or tissues 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, email the RML Waste Management team (niaidrmlwastemanagement@mail.nih.gov).

5. After biological waste bags are filled, we prepare them for disposal by following the procedures as stated below. For more information, refer to the RML Waste Disposal Guide.
   - Tag with an autoclave label with name, date, and location
   - Attach a steam indicator and autoclave tape
   - Autoclave the waste, making sure to allow for steam generation in the bag
   - Do not overfill bags (<25lbs/bag)
   - Let the bags cool before putting them in a clear bag and bringing them to the waste shed/room drop off locations
   - Contact the Waste Management team with any questions (niaidrmlwastemanagement@mail.nih.gov)

Please check the box to indicate your lab's practices:

☐ Yes, all listed actions apply to managing biological waste generated in our lab.
☐ No, one or more of the listed actions are not reflective of our lab's practices.
☐ NA

General Waste (Clear/Black bag) and Recycling

General waste (clear/black bag waste) consists of materials free of pathological/infectious, radioactive, or hazardous chemical contamination. Materials considered as soft plastics are grocery bags, "Ziploc" bags, air shipping pillows, all clean and dry bags, pallet/shrink wrap, and bubble wrap. Other general (solid) waste items are furniture, electronics, equipment, appliances, and ice packs. Recyclable products include pipette tip boxes, #1 plastics, aluminum, steel, cardboard, toner and ink cartridges, and white paper. For more information, email niaidrmlwastemanagement@mail.nih.gov.

6. We collect and recycle mixed paper products, aluminum, #1 plastic bottles, and ink/toner cartridges. All of these items are placed in the correct receptacles following posted instructions. For more information or questions contact the Waste Management team (niaidrmlwastemanagement@mail.nih.gov).
   - ☐ Yes
   - ☐ No
   - ☐ NA

7. We recycle cardboard boxes by flattening the boxes and placing them in the hallways for collection.
   - ☐ Yes
   - ☐ No
   - ☐ NA

8. We surplus government-owned personal property, accountable and non-accountable properties for reutilization and recycling, through our Logistics group by contacting (NIAIDRMLLogistics@niaid.nih.gov). This includes items such as office equipment, appliances, and electronics.
   - ☐ Yes
   - ☐ No
   - ☐ NA

9. We participate in the Polycarbin tip box recycling program (or another tip box recycling program) by autoclaving our tip boxes and adding them to the labeled bins according to posted instructions in the nearest waste/recycling collection location.
   - ☐ Yes
   - ☐ No
   - ☐ NA

10. We purchase and use Polycarbin products, made from recycled plastics, stocked in the RML stockroom.
    - ☐ Yes
    - ☐ No
    - ☐ NA

11. We participate in the free Corning Recycles program. Per RML policy, items from BSL-2 labs need to be autoclaved before shipping to the company. Questions: please

email brandi.williamson@nih.gov.

- ☐ Yes
- ☐ No
- ☐ NA

Freezer Management

NIH Manual Chapter 26101-16 establishes the NIH policy for the selection, inventory, placement, and maintenance of Ultra-Low Temperature Freezers (ULTF), Laboratory Grade Freezers (LGF) and Laboratory Grade Refrigerators (LGR) to increase freezer and refrigerator reliability and reduce energy consumption, operating costs, and greenhouse gas (GHG) emissions. For more information, visit the Freezer Management site.

12. We manage ULT and Laboratory Grade freezers and refrigerators per NIH Manual Chapter 26101-16 as listed below.
    - Conduct preventative maintenance semiannually. Please review the video for details on performing a user-level preventative maintenance.
    - Ensure freezers and refrigerators are placed in areas with at least 6 inches of clear space around the sides and on top.
    - Register freezers and refrigerators into the NIH Business System

    - ☐ Yes, all listed actions apply to our freezer and refrigerator management.
    - ☐ No, one or more of the listed actions are not reflective of our lab's practices.
    - ☐ NA

13. We participated in the 2023 NIH Freezer Challenge to practice environmental stewardship above and beyond the requirements in the NIH Manual Chapter 26101-16.
    - ☐ Yes
    - ☐ No
    - ☐ NA

14. We operate ULT freezers capable of maintaining temperatures between -60°C and -90°C at -70º C or warmer.
    - ☐ 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.

15. We have adopted best management practices such as closing the autoclave door after removing items to prevent loss of heat and steam; condensing autoclave loads; turning off water baths when not in use; and submitting maintenance requests to repair leaks and malfunctioning faucets and machines.
    - ☐ Yes

- ☐ No
- ☐ NA
- ☐ Other, please specify:

Energy Conservation

The NIH Energy Conservation program seeks to minimize energy usage and consider alternatives and other renewable sources of energy. For additional information, visit the Energy Conservation site.

16. We practice good plug load management: turning off equipment when not in use, turning off lights when room is not in use, using plug timers for water baths and other time sensitive equipment, setting applicable BSCs to night mode and/or closing the sash overnight, etc.
    - ☐ 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:

17. We review the Sustainable Marketplace: Greener Products and Services website and Significant New Alternatives Policy (SNAP) program to identify green products/services and to determine acceptable chemical substitutes for ozone-depleting substances, respectively, before purchasing items to be used in our laboratories.
    - ☐ Yes
    - ☐ No
    - ☐ NA

18. We purchase energy-efficient products (appliances, equipment, and instrumentation) certified by ENERGY STAR and energy and water efficient products designated by DOE Federal Energy Management Program (FEMP) per the Federal Acquisition Regulations.
    - ☐ Yes
    - ☐ No
    - ☐ NA

19. We keep an updated chemical inventory and refer to this list before purchasing an item.
    - ☐ Yes
    - ☐ No
    - ☐ NA

20. We search the NIH FreeStuff website and the RML Stockroom free table before purchasing

any lab-related product.

- ☐ Yes
- ☐ No
- ☐ NA

21. We collaborate with the Research Technologies Branch (RTB) to utilize shared resources offered by the various collaborative research technology groups to further our scientific agenda.
    - ☐ Yes
    - ☐ No
    - ☐ NA

Communications 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.

22. We volunteer or participate in RML Environmental Stewardship Committee (ESC) meetings or activities. Email brandi.williamson@nih.gov to participate in the RML ESC.
    - ☐ Yes
    - ☐ No
    - ☐ NA

23. 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

24. In 2023 we completed the NIH Environmental Management System (NEMS) Awareness Training, which informs NIH staff of their roles and responsibilities within NEMS.
    - ☐ Yes
    - ☐ No
    - ☐ NA

25. We have motivated our peers/colleagues from another lab to participate in the NIH Green Labs Program. Please provide the name of your peers/colleagues in the box below.

Optional open-ended questions that will not count toward your GLP score/Certification.:

A. How did you hear about the NIH Green Labs Program?

- ☐ Meeting or working group (please provide name in the text box below)
- ☐ Principal Investigator or Scientific Director (please provide name and IC in the text box

below)
- ☐ Colleague (please provide name and IC in the text box below)
- ☐ NIH Green Labs Fair
- ☐ NIH Intranet site
- ☐ NIH Green Zone Newsletter
- ☐ Green listserv
- ☐ NIH Twitter (X)
- ☐ Other: [Insert text box]

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

C. Any suggestions for improving the NIH Green Labs Program self-assessment form for the Rocky Mountain Labs (RML), Montana?

Thank you for participating in the 2023 RML Green Labs Program. Please provide your comments/feedback for improving the program.