Introduction

Welcome to Week 9 of the 2018 CGLP! This week we will be covering Elective Actions #8 & #9. If you need a refresher from any past weeks, check out the prior newsletters here.

- 8. Participate in an existing battery recycling program (1 point) or start a new one for your building (2 points).
- 9. Create a pipette tip box recycling program for your lab.

As a reminder, completion of five Elective Actions beyond the Required Actions will earn you Bronze level certification, completion of ten will earn Silver level certification, and fifteen Elective Actions will earn Gold level certification.

Instructions

Elective Action #8: Participate in an existing battery recycling program (1 point) or start a new one for your building (2 points).

Check out the iCAP <u>portal page for battery recycling</u> options, especially for rechargeable batteries which can't be disposed of through normal means. Another program well worth checking out is <u>www.batterysolutions.com</u>.

According to the U.S. EPA, about 3 billion dry-cell batteries are purchased every year in the United States, which makes for an average of about 9.2 batteries per American citizen annually. On the one hand, this average doesn't seem particularly high -- after all, we need batteries to power a wide range of the devices and electronics we use every single day. But on the other hand, 3 billion batteries a year is a significant volume of heavy metal being consumed with a large potential to pollute the Earth.

Dry-cell batteries work by combining a heavy metal with a chemical electrolyte. The most common heavy metals in such batteries include mercury, lead, cadmium, and nickel. When tossed in the trash, these metals can be very dangerous in landfills due to their toxicity leaching into the ground. If incinerated, they also pose a pollution threat to the air. Furthermore, just as with nearly every other material we harvest from the Earth, our resources of the metals we use to produce batteries are finite. Having this mass of potentially usable metal sitting forever in landfills is not conducive to the sustainability of our society. For all of these reasons, battery recycling is increasingly essential.

Thankfully, though the current rates of recycling for all types of batteries (with the exception of <u>lead batteries</u>) are chronically low, it really isn't a complicated or difficult process to begin recycling them. If you choose to use Battery Solutions, it is as simple as ordering a container for your lab that you ship back to the company every time it is full. <u>Call2Recycle</u>, the company working on a project with iSEE, uses essentially the same concept, though they send a box rather than a pail.

If your lab is unwilling or unable to purchase these containers, the other way to gain a point for this action would be to collect batteries and then bring them to a location or business in the community than accepts them for recycling.

Here is a brief list of places that would accept the batteries:

- AT&T Wireless Services
 - Accepts rechargeable and single-use batteries.
 - o 201 Knollwood Drive, Champaign, IL 61820
 - 0 (217) 384-2520
- Best Buy
 - o Accepts NiCad and other rechargeable batteries.
 - o 2117 N Prospect Ave, Champaign, IL 61822
 - 0 (217) 352-8883
- Lowes
 - Accepts NiCad and other rechargeable batteries.
 - o 1904 N Prospect Ave, Champaign, IL 61822
 - o (217) 373-7300
- Office Depot
 - o 111 Convenience Center Rd, Champaign IL
 - o (217) 373-5202
- Staples
 - Accepts NiCad and other rechargeable batteries.
 - 2005 N Prospect Ave, Champaign, IL 61822
 - 0 (217) 373-8490

A list of other locations can be found <u>here</u>. It also specifies if each listing accepts other types of batteries, such as car batteries. No matter which location you choose, we would encourage you to call ahead of time to ensure that they accept the type and quantity of batteries you are looking to recycle.

Elective Action #9: Create a pipette tip box recycling program for your lab.

Plastic pipette tips are certainly convenient -- they take away the necessity of washing out chemicals for reuse. But they also generate an awful lot of plastic waste

when they're simply thrown away. The good news is that unless really hazardous chemicals have been in these pipettes, they can be recycled!

The easiest way to do this is to order a container from a program that will recycle the tips when you send back a full box. The following are all good options:

- https://us.vwr.com/store/product/9227627/pipet-tip-box-recycling-program-terracycle
- https://www.terracycle.com/en-US/zero_waste_boxes/vwr-pipet-tip-box
- https://www.fishersci.com/shop/products/terra-cycle-set-12x12x27/01000999

Of course, these containers aren't necessarily inexpensive. If you're short on funds, you might try applying for a grant from the <u>Student Sustainability Committee</u> to cover the costs. Applying during the regular application cycles would be a good way to get funds for continued purchasing of the containers over the long-term. If you only want to experiment with pipette recycling one time before committing for longer, an <u>SSC micro-grant</u> might be a better option. With this type of grant, you can apply at any time during the academic year!

Of course, the even greener pipette option is to use glass pipette tips and to wash them for reuse. If you'd like to cut back even further on your plastic consumption, this might be the way to go. <u>Go here</u> to read about the pipette wash rack initiative at the University of California-San Francisco and some of the benefits of using them.