

Introduction

Welcome to Week 14 of the 2018 CGLP! This week, we'll be finishing up the Efficiency & Equipment action, with Elective Actions #16 & #17. If you need to review anything from our prior weeks, go [here](#).

16. Clear ice buildup in your freezer to maximize efficiency and lifespan.
17. Review and practice maintenance requirements for research equipment.

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 #16: Clear ice buildup in your freezer to maximize efficiency and lifespan.

Another thing that obstructs the efficiency of lab freezers is the buildup of ice. Defrosting freezers regularly can be a pain, but also very important to keep them running as best as they can and using a minimal amount of energy and electricity.

[My Green Lab suggests](#) that the best practice is to both defrost the inside of your freezers and vacuum the outside as well as the freezer coils either annually or biannually. When both ice and dust build up, the freezer must work harder (and consume more electricity!) to maintain the same level of performance and temperature. So, clearing out the buildup regularly will also help to extend the life of your freezer and save you money!

Elective Action #17: Review and practice maintenance requirements for research equipment.

Research equipment is expensive and valuable, and it's important to keep it in top shape for many reasons. One of the most obvious is that the more often equipment breaks or wears out, the more often money has to be spent to replace it. But quickly going through various pieces of equipment also has an impact on the environment - mostly on the raw materials needed to construct them and the carbon emissions necessary for extraction and production. The less often we buy equipment, the less often we cause these impacts.

Therefore, it is very important to review your equipment and perform maintenance checks on them regularly, not just when there is clearly something wrong. Your equipment will stay in better shape if problems are prevented before they happen. To complete this action, select a frequency and specific dates for these checks, and assign lab workers to complete them if you wish.

If defrosting the freezer is a particularly daunting task for you, [check out this article](#) with some practical tips for the job. The basic tips include:

- Notify, Alert, & Warn
- Love Thy Label Maker
- Minimizing Freeze-Thaw
- Preparing for Transfer
- Work From the Top Down