

# Radiation Safety Refresher Training 2021



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# Outline



- Welcome New Rad Safety Staff - Colt Greer
- Results of 2020 RSC Summer Audits
- COVID controls in the lab
- Supervision of new isotope users
- Introduction to Princeton Service Portal
- Access to Liquid Scintillation Counters
- Common locations where contamination found
- RAM waste collection procedures
- Sewer release protocol

# Welcome Colt



Colt Greer, CHP

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## New Radiation Safety Sr. Program Manager

- Certified - American Board of Health Physics
- >10 yrs. radiation safety experience
- Master's Degree in Radiation Health Physics

# 2020 RSC Summer Audit

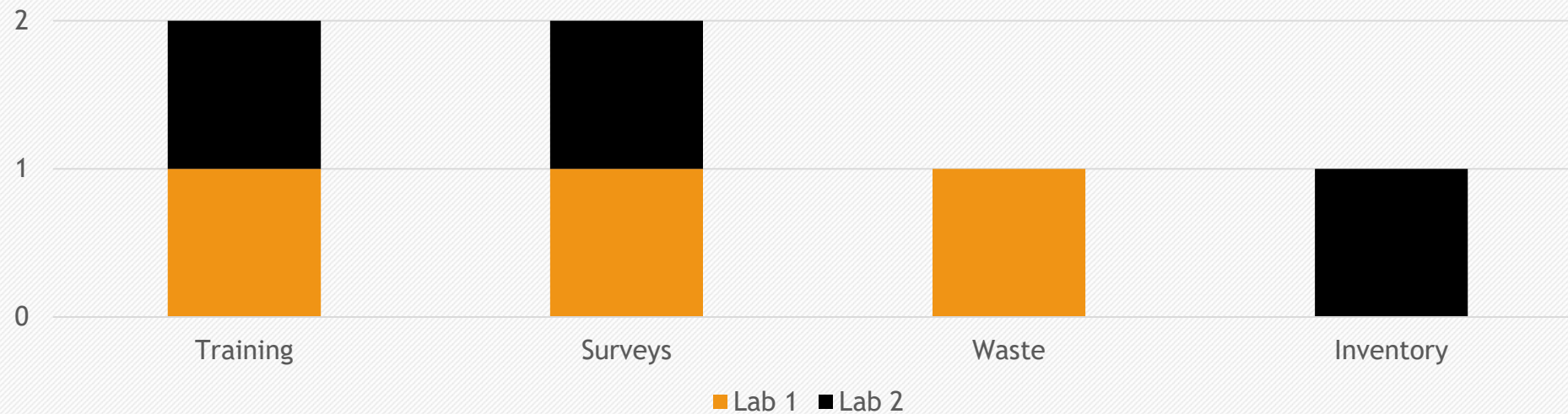


2 Labs inspected

6 total findings

4 different items of non-compliance

2 of which were found in both labs



# 2020 Audit Detailed Findings



- Training: Refresher & Initial
  - [Welcome to BioRAFT | SHIELD](#)
- Surveys: Post Op Contamination Surveys SOP & Documentation
  - [Contamination Surveys | Office of Environmental Health and Safety](#)
- Inventory: Promptly dispose of stock vial once removed from RITA
  - [RITA | Review User Inventory](#)
- Waste: Inscribe Isotope on Tag prior to use
  - [Radioactive Waste | Office of Environmental Health and Safety](#)

# COVID-19 Controls



- Limit Number of Occupants
- Frequent hand washing/sanitizing
- Social Distancing
- Face Coverings
- Egress/Ingress



RLOP



# Training Reminders



- All members of a radioisotope-using lab must complete radiation safety training

## ★ Radiation Safety Awareness

- ★ Training for all who do not use RAM

## ★ Radiation Basics & Radioactive Materials Safety Class

- ★ Training for PI and researchers who use RAM

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Choose a Department from the tabs below. Click on a topic to see a list of available training opportunities in that area.

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COVID-19 Awareness for Faculty Staff and Researchers | COVID-19 for Students | Radiation Safety  
Emergency Preparedness | Fire Safety | eLearning | Department Highlights

Environmental Health and Safety | Radiation Safety  
[Click here for Radiation Safety eLearning \(WEB\) courses.](#)

To register for a session, click on the enrollment name.

▼ Enrollments

No records found.

#### RAM-Radiation Safety

**Radiation Basics Modules for Contained Source Users DEC2020** - This radiation safety training presentation is intended for people who plan to use contained sources of radioactivity.  
[Click here to start this course](#)

**Radiation Basics Modules for Open Source Users DEC2020** - This radiation safety training presentation is intended for people who plan to use open sources of radioactivity. The Radiation Basics modules are a prerequisite for attending the Radioactive Materials Safety Class.  
[Click here to start this course](#)

**Radiation Safety Awareness Training for Non-Radioisotope Users - DEC2020** - Radiation safety training awareness training for researchers who work in areas where radioactive materials are used but who do not use radioactive materials themselves.  
[Click here to start this course](#)

**Radiation Safety Training for Uranium and Thorium Users DEC2020** - Training for Princeton University researchers and staff who use uranium and thorium compounds in small amounts for applications such as electron microscopy.  
[Click here to start this course](#)

**Refresher - Radiation Safety Training for Contained Source Users DEC2020** - A web-based training session offered to users of Category B, C, and D contained

# New Users



PI and senior members must ensure:

- Adequate training
- Supervision
- Lab specific training
- Dry-runs
- Competence




This can be a problem when a lab's use of radioactive materials is very infrequent. How can adequate training be provided?

★ **Notify the Radiation Safety Officer (Steve Elwood)**



# Princeton Service Portal



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## How can we help?

We're here to provide support for all members of the Princeton community.

- Search Support -

**ANNOUNCEMENT** | To learn more about the University's COVID-19 testing protocol, visit <https://covid.princeton.edu/testing>

### Contact Us

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<b>HRES</b> Housing & Real Estate	<b>OIT</b> Information Technology	<b>McG</b> McGraw Center for Teaching and Learning
<b>ORPA</b> ORPA	<b>TC</b> TigerCard	<b>T&amp;P</b> Transportation & Parking


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Manual install of Code42 Crashplan 7.4.0 client (for Windows) ☆ KB0011224

In this article:

Manually installing Code42 CrashPlan 7.4.0 Client for Windows and registering your computer with CrashPlan. These

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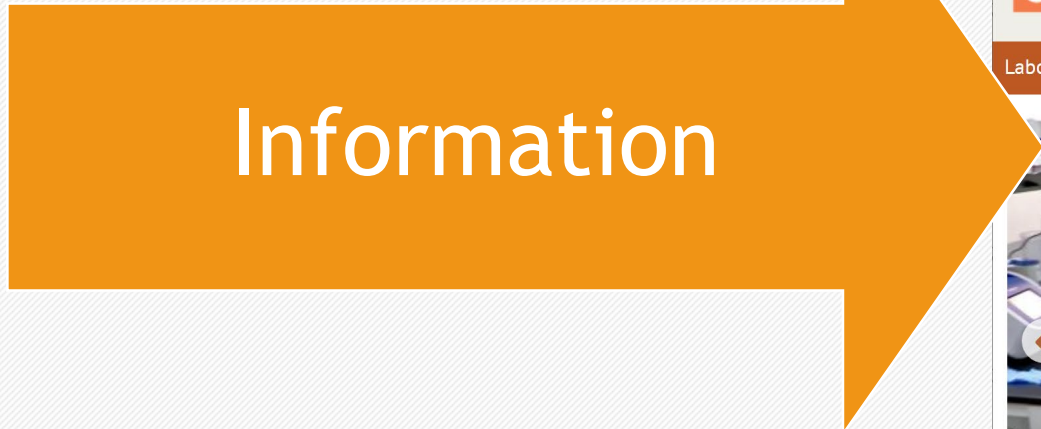


Emergencies 24 Hours

Do you need to plan for or respond to an emergency? The Emergency Preparedness Page will help you prepare an effective response.

Report & Manage Safety Issues Who is responsible for managing safety issues? How can you report or resolve a safety problem?

Tools



# Key Takeaways



- Everything Changes / Nothing Changes
- Improve Service
- Increase Transparency
- Streamline Workflow - Customer & EHS
- Assembling a Knowledge Base



# Access to LSCs



- EHS will help coordinate ancillary LSCs that may be available for your use.
- Please contact the appropriate PI or owner to request access for use of the nearest LSC.



# Common Contamination Locations



Sink (basin, drain, benchtop, floor)

Equipment (lockbox, fridge, shielding, micro agitator, centrifuge)

Fume Hood (sill and benchtop)

Benchtop

Waste Containers

# RAM Waste Collection Reminder



You must close and seal the bag.

Sealed with zip tie

**Do NOT overfill!**

**When EHS arrives to collect the waste must:**

- Seal bag (zip tie)
- Tighten lid
- Complete waste tag (top & bottom)

**EHS may reject non-conforming waste.**



The date you write on this tag is the date that you schedule EHS to pick up the pail, not the date you start using the pail.

# Special Categories of Radioactive Waste



- **MIXED RADIOACTIVE-HAZARDOUS CHEMICAL WASTE**

Note: Contains **both** radioactive and hazardous (RCRA\*) waste components.  
(i.e.  $^{32}\text{P}$ -phenol,  $^3\text{H}$ -contaminated HPLC wastes, radioactive contaminated lead)

- **URANIUM and THORIUM COMPOUNDS**

Note: Could be Mixed Waste (i.e. Nitrates).

- **ANIMAL CARCASSES**



Notify EHS before you generate these wastes

\* RCRA - Resource Conservation and Recovery Act

# Sewer Release Protocol



- Non-Hazardous
- Soluble in water or readily dispersible biological material
- pH between 5.5 and 9.5
- Flush with lots of water so it doesn't get caught in the trap
- [Updated list of compounds posted](#) (2019)





# Thank you!



Contact EHS - [ehs@princeton.edu](mailto:ehs@princeton.edu)

**ANY HOUR OF ANY DAY 609.258.5294**

Press “2” to be connected to the EHS on-call phone with an urgent health and safety matter