

Laboratory Radioactive Waste Disposal Procedures – Solid Waste

Effective June 2015

Materials:

- Five-gallon plastic pails provided by EHS:
 - White for H-3 and C-14 and any isotopes with half-lives > 120 days
 - Gray for P-32
 - Blue for P-33, S-35, I-125 and any isotopes with half-lives < 120 days
- 8 ml yellow plastic pail liners provided by EHS
- Yellow ID tags provided by EHS
- Waste Pail Logs for Long-Lived and Liq Scint Waste (electronic form provided by EHS)
- Self-locking cable ties to seal the liners after use, provided by EHS

Setting up the Pail for Lab Use

Remove the lid and open the yellow pail liner within the pail. Pull the top of the liner over the outside edge of can. Open the liner fully by pushing the bottom of the liner all the way down to the bottom of the pail.

Adding Waste to the Pail

Permissible Waste

- Dry materials including bench paper, paper towels, gloves, etc.
- Damp materials and droplet amounts of liquids contained in tubes or pipette tips (<50 ul/tube; no tubes containing free-flowing liquids)
- Sharps (must be placed into a sharps container labeled as *Radioactive*. When the sharps container is full, close it and add it to the pail)

Prohibited Materials

- Lead
- Unprotected sharps
- Tubes with free-flowing liquids
- Isotopes that do not fit the category of the waste pail (see pail colors in the Materials section above)
- Mixed waste (waste that contains both radioactivity and hazardous chemical components)

Estimating Amount of Radioactivity

- For long-lived wastes in the white pail, you must provide a reasonable estimate of the amount of radioactivity in the pail. Keep a Waste Pail Log near the pail. Each time you add waste to the pail, use the Log to list the date of entry and the estimated activity placed into the pail.

Preparing the Pail for EHS Waste Collection

1. Pull up the top of the pail liner. Close the neck of the bag and twist it. Use the cable tie to close the bag securely.
2. Place the lid on the pail and twist the lid securely shut.
3. Pail must not be overfilled – you must be able to seal the bag and close the pail.
4. Complete both halves of the ID Tag (except for the Account # which is no longer needed). Note that the Date on the tag is the date on which you deliver the pail to EHS. For long-lived wastes, you must enter the amount of radioactivity in the pail. For short-lived waste, it is acceptable to check either the < 1 mCi or > 1 mCi boxes.

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Transferring Waste Pails to EHS

- Call or email the EHS Waste Radioactive Contacts to make an appointment to bring your waste to the waste collection room:
 - Tom Drexel at 8-6255 and tdrexel@princeton.edu or
 - Kyle Angjelo at 8-2711 or kangjelo@princeton.edu.
- Bring your waste pails to Room 066, Moffett Lab, at the appointment time.
- Put your pails on a cart or carry them over. Wear a lab coat and gloves.