

NREL Materials Recycling Procedure

Purpose To promote environmental sustainability and stewardship, NREL provides the infrastructure for workers to incorporate materials recycling in daily operations. This procedure identifies appropriate materials, collection locations, and rules and processes for recycling.

Authorizing Policy NREL Policy 2-7 Sustainable NREL

Applicability This procedure applies to NREL workers.

General Rules The following general rules apply to materials recycling.

Materials Handling at NREL. Material waste that cannot be prevented by reducing the amounts of materials used, should be reused or recycled. Disposal should be employed as a last resort, and should be done in an environmentally safe manner.

Recycling Materials from Home. Workers may use NREL's outdoor, but not indoor, recycling collection locations for recyclable materials, excluding batteries and hazardous materials, from home. To recycle or dispose of hazardous materials from home, contact your county or city or go to the Colorado Department of Public Health and the Environment Web site on Household Chemical Waste Collection Events or Facilities. NREL has two collection locations for home recyclables. The materials collected at the two locations differ as follows:

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General Rules Recycling Materials from Home

- **FTLB (southwest corner of parking lot)**

Items that may be commingled in the large roll-off container:

- Glass bottles and jars
- #1 and #2 plastic
- Cans (aluminum, tin, and steel).

Material categories with their own containers:

- Office pack, including paper, newspaper, books, magazines, and mail; *excluding* cardboard, brown paper, carbon paper, napkins, tissue paper, paper plates, wax paper, and phone books
 - Cardboard, including gray and/or brown cereal box cardboard
 - Scrap metal.
- **Building 17 (near the I-70 fence).** Cardboard, including gray and/or brown cereal box cardboard.

Disposal of Records. Records that have met their approved retention period, and that are not applicable to impending or ongoing audits or litigation may be disposed of through the recycling program. Records must be segregated by non-sensitive and sensitive or confidential. Sensitive or confidential records must be disposed of by suitable means, including placement into locked confidential bins or shredding within the office.

Materials Collected for Recycling. The following table identifies the materials NREL collects for recycling.

Material	Include	Exclude	Additional Guidance	Collection Location/ Contact
Paper (Office Pack)	<ul style="list-style-type: none">• Copier paper• Printer paper• Glue or staple bound catalogs, magazines, and manuals	<ul style="list-style-type: none">• Napkins• Paper towels• Tissue paper• Other absorbent paper		All buildings

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Materials Collected for Recycling

Material	Include	Exclude	Additional Guidance	Collection Location/ Contact
Paper (Office Pack)	<ul style="list-style-type: none"> • Pamphlets • Post-it notes • Scrap paper • Large and small envelopes with or without labels and plastic windows • Clay-coated glossy paper • Manila file folders (including colored, coated, plastic tabs, and metal strips) • Faxes • Newspaper • Hard and soft cover books • Hanging file folders 	<ul style="list-style-type: none"> • Paper soiled with grease, oil, food, or chemicals • Paper plates and cups • Candy wrappers • Tyvek • Brown paper bags • Bright (ink-saturated) paper (pastel-colored paper is acceptable) • Phone books • Carbon paper • Waxed paper • Cardboard • Packing envelopes with cushioning foam or bubble wrap 	<p>Normal amounts of tape, staples, paper clips, spring clamps, rubber bands, post-it notes, plastic tabs, and wire and plastic spirals are okay to include.</p> <p>Individual office/workspace collection bins are emptied once per week.</p>	<p>Collection bins in individual offices/workspaces.</p>
Paper – Non-Sensitive Records	<p>Non-sensitive records having met their approved retention</p>	<ul style="list-style-type: none"> • Sensitive or confidential records having met their approved retention • Records with an unknown retention • Records that have not met their approved retention • Records applicable to impending or ongoing audits or litigation • Records on media other than paper 	<p>Place non-sensitive records that have met their approved retention period into unlocked recycle bins, either in individual offices/workspaces or in central collection areas.</p> <p>Additional information is available in procedure 3-5.2 Management of Inactive Records.</p>	<p>All buildings</p> <p>Contact Records Management with questions regarding the appropriate methods to destroy non-sensitive records.</p>

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Materials Collected for Recycling

Material	Include	Exclude	Additional Guidance	Collection Location/ Contact
Paper – Sensitive or Confidential Records	Sensitive or confidential records having met their approved retention	<ul style="list-style-type: none"> • Non-sensitive record having met their approved retention • Records with an unknown retention • Records that have not met their approved retention • Records applicable to impending or ongoing audits or litigation • Records on media other than paper 	<p>Place sensitive or confidential records into locked confidential bins. The recycling contractor shreds the contents of these bins. This process meets the federal regulations related to the appropriate destruction of records.</p> <p>Additional information is available in procedure 3-5.2 Management of Inactive Records.</p>	<p>Locked collection bin located in Building 17.</p> <p>Contact Records Management with questions regarding the appropriate methods to destroy sensitive or confidential records.</p>
Books	<ul style="list-style-type: none"> • Hardcover and soft cover books • Catalogs • Magazines 	Other paper products		Library
Cardboard	<ul style="list-style-type: none"> • Corrugated (two sheets with a rippled sheet in between) cardboard • Gray and/or brown cereal box type cardboard (flat) • Brown (Kraft) packing paper • Brown (Kraft) paper bags 	<ul style="list-style-type: none"> • Styrofoam and other cushioning materials • Plastic bags and wrapping • Cardboard soiled with grease, oil, food, or chemicals • Cardboard with glued-on foam • Items that are not 100% corrugated cardboard or brown or gray box type cardboard 	Shipping and other labels, packing tape, and staples do not affect the recyclability of cardboard.	Most buildings

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Materials Collected for Recycling

Material	Include	Exclude	Additional Guidance	Collection Location/ Contact
Cardboard		<ul style="list-style-type: none"> • Wax coated cardboard such as milk and juice cartons 		
Pallets	Clean, reusable pallets	Broken or contaminated pallets	The Site Operations Office reuses pallets.	Contact Work Control to arrange pickup.
Metal, Glass, and Plastic Containers	<ul style="list-style-type: none"> • Soda cans • Tin or aluminum food cans • Glass jars and bottles (caps removed) • #1 and #2 plastics 	<ul style="list-style-type: none"> • Plastic items other than #1 or #2 • Pane (window) glass • Pyrex • Light bulbs • Paint cans • Chemical cans • Other containers not identified in the "Include" column 	<p>Plastic items have a number within the embossed recycling logo.</p> <p>Rinse food containers thoroughly.</p> <p>Remove caps from plastic bottles.</p>	All buildings
Packing Peanuts	<ul style="list-style-type: none"> • Styrofoam peanuts • Cornstarch peanuts • Small air-filled plastic peanuts • Curled woodchips 	<ul style="list-style-type: none"> • Bubble wrap • Styrofoam chunks (items that are not peanut size) • Molded styrofoam • Foam • Plastic bags 	<p>The Site Operations Office Shipping and Receiving Group reuses clean packing peanuts.</p> <p>Chemicals may be packed in vermiculite due to its absorbency. While NREL does not recycle vermiculite, it is a good addition to garden soil or compost, provided no chemicals have leaked into it.</p>	Most buildings

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Materials Collected for Recycling

Material	Include	Exclude	Additional Guidance	Collection Location/ Contact
Tyvek Envelopes	Tyvek envelopes	Contaminated Tyvek material	Tyvek (difficult to rip, slick envelopes) is a form of #2 plastic.	Some buildings Alternatively, send via interoffice mail to: Mailroom, C/O Tyvek Collection
Batteries	Common, small batteries	<ul style="list-style-type: none"> • Car and other large batteries • Leaking or broken batteries • Wet lead-acid batteries • Batteries from home 	Batteries used at NREL must be recycled. To arrange pickup of batteries in the "Exclude" list, except those from home, contact the designated recycling coordinator.	All buildings except 15 and Mesa Top facilities Collection bins are small plastic buckets.
Transparencies	Transparencies	<ul style="list-style-type: none"> • Sheet protectors made from vinyl, polyethylene or polypropylene • Cardboard frames 	Transparencies are made from PET (polyester). A transparency holder or cover that is also PET such as 3M brand flip frames may be recycled.	Send via interoffice mail to Transparency Recycling C/O the designated recycling coordinator. For large quantities contact the designated recycling coordinator.
Toner Cartridges	<ul style="list-style-type: none"> • Toner cartridges from printers, copiers, and fax machines • Ink cartridges from printers and fax machines 		For building recycling centers that do not have cartridge bins, place cartridges near other bins in the center.	All shipping pick-up locations

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Materials Collected for Recycling

Material	Include	Exclude	Additional Guidance	Collection Location/Contact
Toner Cartridges			Mark the boxes of defective cartridges.	
Scrap Metal	<ul style="list-style-type: none"> • Ferrous metal • Brass • Copper • Aluminum • Steel 	Trash		Roll-away bin at the FTLB loading dock, or contact Work Control for pickup
Fluorescent Light Bulbs	Fluorescent light bulbs	Other types of light bulbs	Light bulbs are typically changed and handled by the Site Operations Office Facilities Group.	Contact the designated recycling coordinator for exceptions.
Computer Software	<ul style="list-style-type: none"> • Floppy disks • CD-ROMs 	Cardboard covering, holders, and plastic		Send to the Information Services Office Client Services Group for disposition
Computer Hardware	Computer hardware		Refer to procedure 8-7.4 Computer Reutilization for guidance.	Contact Property Mgmt. to arrange pickup

General Rules **Recycling Collection Locations.** The following table identifies NREL’s indoor recycling collection locations. In addition, NREL maintains two outdoor collection locations as described in General Rules – Recycling Materials from Home.

Recycling Collection Locations

Building	Location(s)
Building 15	15/4
Building 16	16/2
Building 17	17/2
Visitors Center	Paper: Near the copy machine Cans: Outside the auditorium
SERF	West: Near Conference Room C119 East: Corridor near C125
FTLB	Main service corridor, east end Various others typically near copiers and printing machines
AFUF	Near vending machines on west end of building
OTF	Room 120-00, shipping/receiving area
TTF	Containers: Kitchen area Paper: Copy room Paper and Cardboard: Mid-bay, east side
NWTC Building 251	Lunch room Near copy machines Near First Aid room
IUF	User bays 1 and 2
Shipping and Receiving	North side by vending machines

Responsibilities Specific responsibilities for materials recycling include the following:

Role	Responsibilities
Site Operations Office	Oversee Laboratory recycling operations.

Responsibilities

Role	Responsibilities
Recycling Advisory Committee	Recommend improvements and enhancements to Laboratory recycling operations in collaboration with the Sustainable NREL lead.
Recycling Coordinators	Monitor building recycling center operations and act as liaisons between workers and the Site Operations Office.
Site Operations Office Work Control Center	<ol style="list-style-type: none"> 1. Pick up rolling bins from building collection centers. 2. Pick up scrap metal, fluorescent light bulbs, and pallets as requested. 3. Call recycling vendor as needed for extra pickups.
Environment, Safety, Health, and Quality Office	Pick up batteries and fluorescent light bulbs as needed for appropriate recycling.
Information Services Office Client Services Group	Recycle computer software media as needed.
Workers	Recycle material waste in accordance with this procedure.

Materials Recycling

Use the following procedure to recycle material.

Step	Action
1	Identify and separate recyclable material from disposable waste.
2	As appropriate, prepare material for recycling by: <ul style="list-style-type: none"> • Rinsing food containers • Removing reusable office supplies such as paper clips and binder clips • Removing packing materials from cardboard boxes, then breaking them down so that they lay flat in collection bins.

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Step	Action
	Note: If a cardboard box cannot be broken down, leave it near the bin, removing and discarding plastic wrapping and paper packing. If the cardboard has foam glued to it, either remove the foam or dispose as trash.
3	Recycle material as described in General Rules – Materials Collected for Recycling.
