

Recycling at MUSC



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CRA
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Overview

› MUSC Enterprise 2017

- › University/Research
- › Hospital
- › MUSC Physicians/Outpatient

› Basic Stats

- › 7.8 million Sq Feet
- › 82 acre campus
- › 709 licensed beds in 3 Hospitals
- › over 800 Research Labs
- › Over 3,000 employees and 4,000 students
- › Economic Impact of more than \$3.8 Billion



Reuse

Reusable Office Supplies

- › Two locations on-campus
- › Broadcast messaging
- › Clean-outs
- › All items free to students, faculty & staff
- › Pens, pencils, calculators, staplers, rubber stamps, staples, scissors, notebooks, notepads, 3-ring binders, folders, envelopes, manila & hanging file folders, paperclips, rubber bands, small desk top accessories, laser toners and ink jet supplies



Education



ENDOSCOPY RECYCLES



Saline Bottles



Plastics #1 - #7



Clear Hard Plastic Packaging

Questions: call 2-4066 Full bin: call 2-5600 <http://www.musc.edu/gogreen>

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Paper Shredding

Why shred all paper?

- › Patient, research, finance, HR
- › Human error
- › Efficient: one trip

Why we own our shred truck?

- › Savings 1st year over \$100K
- › Integrate with all recycling: overall costs decrease
- › Control size of shred
- › Provide high level of service

Education and Training

- › On-line mandatory HIPPA training for all
- › Recycling staff sign confidentiality statement
- › Recycling staff receive on-going training



Paper Shredding

Special Concern

HIPPA PHI definition:

- › PHI can be defined as any individually identifiable information, whether in oral, written or electronic form, and relates to the past, present, or future physical or mental health or condition of an individual; or the past, present or future payment for the provision of health care to an individual.



Special Concern

2012 NFPA 101 18/19.7.5.7.2 always check for current version of NFPA

Containers used solely for recycling clean waste or for patient records awaiting destruction shall be permitted to be excluded from the requirements of 19.7.5.7.1 where all the following conditions are met:

- (1) Each container shall be limited to a maximum capacity of 96 gal (363 L), except as permitted by 19.7.5.7.2
- (2) Containers with capacities greater than 96 gal (363 L) shall be located in a room protected as a hazardous area when not attended.
- (3) Container size shall not be limited in hazardous areas.
- (4) Containers for combustibles shall be labeled and listed as meeting the requirements of FM Approval Standard 6921, Containers for Combustible Waste; however, such testing, listing, and labeling shall not be limited to FM Approvals.

Electronic & Universal Waste

E-Waste

- › CD's, floppy disk, cords, plugs, calculators, speakers, printers, cell phones, LED bulbs & ballasts
- › Surplus collects large items: monitors, CPU's, tagged property

Toner

- › Some public recycling boxes

Batteries

- › 100's of locations
- › Accept lead acid, Li-Ion, Ni-Mh, Ni-Cad, Alkaline

Light Bulbs

- › Fluorescent tubes and bulbs



LARGE:
Five-gallon
bucket



MEDIUM:
Two-gallon jug



SMALL:
compact quart size container
holds over 200 AA batteries

Battery Bin

Selection

To request a bin, University employees call 2-4-119/MUHA call 2-5600

Composting

- › Composting of all yard waste
- › Composting of cafeteria waste
- › Composting on-site in urban farm
- › Worm composting of some cafeteria waste



Blue Wrap

- › Recycling staff collect in a 90 gallon cart from SPD Main Hospital
- › Take to 2 cu yard storage container
- › Once container full empty into cardboard compactor on dump day
- › No data due to being mixed with cardboard



Blue Wrap



OR/Procedure Rooms

- › Recycling during room set-up
- › PGM: OR/procedure rooms 24 gal
- › Paper: 5 gal under computer cart
- › Paperboard: 24 gal sterile core, glove and suture boxes
- › Glass: BSS bottles
- › Rigid Plastic: 1- 7
 - › No soft plastic –tubing, tyvek, IV bags, foam, bags
- › Metals: lead aprons, lead pigs (radiation), tube feed cans



OR Recycles!

#1 - #7

EMPTY!

Saline Solution Bottles

Clean Plastics: #1 - #7

Clear Hard Plastic Packaging

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NO STYROFOAM, NO PLASTIC WRAP,
NO MASKS, NO GLOVES, NO TRASH,
NO CONTAMINATED ITEMS

Questions: call 2-4066 Full bin: call 2-5600 <http://www.musc.edu/gogreen>

The poster features a green recycling symbol with '#1 - #7' inside. Below it, a photograph shows two clear saline solution bottles with a green 'EMPTY!' sticker. Further down, there are images of various clean plastic items: a blue basin, a blue tray, a pink basin, a clear pitcher, and a white bowl. At the bottom, there is an image of clear hard plastic packaging. The poster includes the MUSC logo and a list of prohibited items: NO STYROFOAM, NO PLASTIC WRAP, NO MASKS, NO GLOVES, NO TRASH, and NO CONTAMINATED ITEMS. Contact information for questions and full bin collection is provided at the bottom.



OR/Procedure Rooms



Special Concern

Glass medication bottles are sharps:

- › Drug disposal policy: <https://www.musc.edu/medcenter/policy/Med/C155.pdf>
- › Risk injury when taking the metal/rubber piece off bottle
- › Create possible opportunity to divert drugs



Special Concerns

HIPPA Again?

- › Pill bottle labels, IV bag labels, medication boxes with labels
- › All labels with patient identifiers must be removed before recycling

Recycle or Reprocess

OR's & procedure areas

- › Catheters
- › Cables
- › Biopsy forceps
- › Pressure bags
- › Pulse oximeters
- › Scalpels
- › Bits, blades, burrs



PACU, recovery & patient rooms

- › Cerebral-somatic sensors
- › Blood pressure cuffs
- › SCD/DVT sleeves
- › Pulse ox sensors
- › Stethoscopes
- › ECG leads
- › Pneumatic tourniquets
- › Patient privacy curtains
- › Infuser bags
- › Fall alarms
- › Splints
- › Masks

Labs

- › Targeted education with test
- › No OCC animal shipping boxes
- › Brown glass only
- › Triple rinse containers
- › Metal cages, shelving, mercury & silver
- › Chemicals recycle or burn for fuel through vendor
- › Compost animal waste or use in anaerobic digestion or biofuel
- › Ice packs

Special Concern

Glass contaminates:

- › Lab glass
- › Ceramics
- › Plate glass
- › Plastic coated glass
- › Chemicals
- › Biologicals



Less Waste: Bin Management

Veri-Shred Software

- › Customer, Building
- › Room #, Bin type
- › Barcode, Reports

Mobile ASI Software on Intermec Unit

- › Receive & view service orders
- › Scan bins
- › Enter notes & volume

Billing

- › Monthly billing
- › Could use system like Quick Books for accounts receivable



Results 27%

FY 16	Tons
Office Paper	482
Cardboard	383
Yard Waste	86
Scrap Metal	117
Electronic or E-waste	58
Plastic, Glass & Metal	86
Food Composting	67
Wooden Pallets	36
Cell Phones	.85

	Tons
Fluorescent Tubes	4
Restaurant Grease	27
Medical Products	40
Toner Cartridges	4
Batteries	10
Books	4
Oil & Oil Filters	2
Tires	1
Other Haz Waste	.07

Sustainability & Recycling Staff

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How to reach us:

Phone number: 843-792-4066

Email: recycle@musc.edu

More information:

<http://www.musc.edu/gogreen>