



## Waste

### Introduction

Practice Greenhealth recommends **comprehensive waste tracking** as a starting point for any healthcare institution looking to improve its environmental footprint. Understanding the breakdown of both cost and weight for different waste categories can be one of the easiest strategies to identify areas of opportunity and low-hanging fruit. Beyond waste data, understanding how waste can be prevented, or shifted from a more environmentally-intensive (and expensive) waste stream to a less environmentally intensive waste stream (e.g., from **regulated medical waste** into **recycling**) is key to truly reducing the facility's waste footprint.

**Baseline Year:** The facility's baseline year is generally the **first year the facility started tracking waste data**. Some facilities use the first year they apply for an award. If 2021 is your first year of waste tracking, please enter data in both the **Baseline Year** and the **Current Year** column (leaving the **Previous Year column blank**), and it will become your baseline for next year's award data.

#### 1.\* Baseline Year:

#### 2.\* Has the organization identified someone to oversee waste operations?

☒ Yes

☐ No

#### Contact Information

##### 2.a\*

Name of waste lead:

##### 2.b\*

Title of waste lead:

##### 2.c\*

Email of waste lead:

The waste data in this section requires **12 consecutive months of waste data**. While energy data must be tracked in a calendar year, waste data can utilize a fiscal year if necessary. We ask that you please use the **same 12 months consistently** each year you apply, so we can compare year-to-year totals effectively.

### Solid Waste

Please indicate the facility's **Solid Waste** totals in Table A below (enter a numerical response). You are required to complete the **Current Year** column at a minimum.

If you are using a vendor that uses a **flat fee for integrated waste removal** (e.g., RMW and **solid waste** go out at the same price per lb), please enter your tonnage but do not include your cost data in Table A below, as it will skew the data set.

**Non-RCRA Pharmaceutical Waste** data will be captured in the category in which it is being treated/disposed. If the facility is segregating and collecting **Non-RCRA Pharmaceutical Waste** and disposing of it as **solid waste** (e.g., sent to a municipal waste incinerator via a pharm waste hauler), please enter Non-**RCRA** Pharm Waste data in **Table A. Solid Waste**. If Non-**RCRA** Pharm Waste is disposed of as **regulated medical waste** (e.g., sent to an RMW incinerator), please enter Non-**RCRA** Pharm Waste data in **Table C. Regulated Medical Waste**. DO NOT enter Non-**RCRA** Pharm Waste in both Tables A and C. This will double count this waste stream.

**\*\*\*If your facility does NOT source-segregate non-RCRA pharmaceuticals into separate containers for disposal with a licensed hauler, DO NOT enter any data for non-RCRA pharm waste into either Table A or C. Please leave the cells blank.**

#### Table A. **Solid Waste**

(Please do not use commas or \$ signs.)

Solid Waste	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
Solid Waste	<u>3.*</u> <input type="text"/>	<u>4.*</u> <input type="text"/>	<u>5.*</u> <input type="text"/>	<u>6.*</u> <input type="text"/>	<u>7.*</u> <input type="text"/>	<u>8.*</u> <input type="text"/>
Non-RCRA Pharmaceutical Waste (MSW)	<u>9.*</u> <input type="text"/>	<u>10.*</u> <input type="text"/>	<u>11.*</u> <input type="text"/>	<u>12.*</u> <input type="text"/>	<u>13.*</u> <input type="text"/>	<u>14.*</u> <input type="text"/>
Total Solid Waste	<u>15.*</u> <input type="text" value="0"/>	<u>16.*</u> <input type="text" value="0"/>	<u>17.*</u> <input type="text" value="0"/>	<u>18.*</u> <input type="text" value="0"/>	<u>19.*</u> <input type="text" value="0"/>	<u>20.*</u> <input type="text" value="0"/>

**21.\*** How does your facility dispose of its regular (non-pharmaceutical) **solid waste**?

- ☐ Landfill  
☐ Municipal Waste Incinerator  
☐ Waste-to-Energy Incinerator  
☐ Other

## Recycling

**22.\*** Does the facility recycle clinical/**medical plastics**?

- ☒ Yes  
☐ No

**22.a\*** Which clinical plastics are being recycled by the facility (select all that apply):

- ☐ Irrigation bottles  
☐ Skin prep solution bottles  
☐ Trays  
☐ Overwraps  
☐ Rigid inserts  
☐ Blue wrap  
☐ Tyvek  
☐ Basins  
☐ Urinals/Bedpans  
☒ Other

**22.a.a\*** Please describe any other plastic items being recycled:

Please indicate tonnage and cost for the selected items above in **Appendix A**.

**23.\*** Does the facility recycle **precious metals** from clinical devices?

- ☒ Yes  
☐ No

**23.a\*** Please indicate which metals from which devices:

Please indicate tonnage and cost for the selected items above in **Appendix A**.

## Recycling Profile

Please enter the facility's individual **Recycling** Totals in **Appendix A**. The data will self-populate in the **Current Year** column in Table B.

Please enter baseline and previous year **recycling** tonnage and annual costs in Table B below. If this year is your first year of tracking **recycling** data, go ahead and enter the same number as **Current Year** in the **Baseline Year** column, leaving the **Previous Year** column blank. **Do not enter zeros**. A negative number in cost field denotes a revenue (or rebates from **recycling**). Reuse and **diversion** are **not included in this table** but are credited elsewhere in the application. Construction & Demolition (C&D) waste **recycling** is tracked in the **Green Building**, Table C.

**PLEASE NOTE: The tonnage and costs for Current Year will be autopopulated from Appendix A (which is MANDATORY).**

Table B. **Recycling**

Recycling Streams	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current

<b>Recycling</b> (Current Year data will be entered from Appendix A)	<b>24.*</b>	<b>25.*</b>	<b>26.*</b>	<b>27.*</b>	<b>28.*</b>	<b>29.*</b>
			0			0
<b>Universal Waste</b> (Current Year data will be entered from Appendix A)	<b>30.*</b>	<b>31.*</b>	<b>32.*</b>	<b>33.*</b>	<b>34.*</b>	<b>35.*</b>
			0			0
<b>Recycling Total</b>	<b>36.*</b>	<b>37.*</b>	<b>38.*</b>	<b>39.*</b>	<b>40.*</b>	<b>41.*</b>
	0	0	0	0	0	0

**42.\*** This is the value of total annual **recycling** costs that will be used in calculating total waste cost percentages in Table K at the bottom of this page. Costs will be used unchanged, but all revenue will be changed to zero.

### Waste Reduction Activities

**43.\*** Has the facility developed an equipment and supplies **donation** program (domestic or abroad) for materials, equipment and furniture that can no longer be used internally? The Catholic Health Association provides an excellent discussion and resources on **Medical Surplus Recovery**.

- ☒ Yes  
☐ No

**43.a\*** Please indicate which items are routinely donated:

- ☐ Unexpired/unopened consumable clinical supplies  
☐ Expired/opened consumable clinical supplies  
☐ Capital medical equipment  
☐ Electronics  
☐ Furniture  
☐ Linens  
☐ Other supplies

**43.b\*** If tracked, please enter the tonnage of materials and equipment donated in 2021:

**44.\*** Has the facility implemented a **paper reduction** program?

- ☒ Yes  
☐ No

**44.a\*** Please indicate which activities the institution has pursued to gain those reductions. Please select all that apply.

- ☐ Reduced network printers  
☐ Made double-sided printing the default on printers/copiers  
☐ Reduced number of automatically printed reports  
☐ Implemented EMR/EHR system  
☐ Created digital signage  
☐ Increased electronic meetings  
☐ Engaged supply chain around paper reduction  
☒ Other

**44.a.a\*** Please describe other paper reduction efforts:

**45.\*** How many **cases of white copy paper** did the facility purchase in 2021?

**46.** This was the number of cases of **white copy paper** purchased in 2020:

**47.\*** This is the facility's **Percent Reduction in Paper Use from Previous Year** (based on the number of cases of white copy paper purchased):

0

A positive number indicates a decrease in organizational paper use; a negative number indicates an increase in organizational paper use.

**48.\*** Is the facility tracking a metric for **total waste diversion** from landfill or incineration?

- ☒ Yes  
☐ No

A **diversion** metric would be an umbrella metric that could include multiple **diversion** mechanisms such as **recycling**, reprocessing, reuse, composting, anaerobic **digestion**, **solvent distillation** or other.

**48.a\*** Please describe any overarching waste **diversion** metrics currently utilized by the facility:

## Less Food To Waste Stream

It is estimated that **10% to 15%** of an average hospital's waste is comprised of food waste. The US EPA and the USDA announced a partnership, calling on businesses to commit to food waste reduction by 50% by 2030. As a result, Practice Greenhealth developed resources around **Less Food to Landfill** intended to mobilize the health care community around the opportunity to maximize food as a valuable resource, feed hungry people, and reduce methane gas associated with food breakdown in landfills.

For the purposes of this application, the reduction of wasted food falls into the following categories:

- **Prevention and source reduction:** Purchasing practices that avoid spoilage and expiration, just-in-time preparation, food scrap techniques.
- **Food recovery and donation:** Re-serving and/or donating edible food.
- **Food waste disposition:** Composting, **digestion**, or animal feed.

Applicants may answer the questions in this section on either the Food page or the Waste page and answers will be copied to the other page. The questions will be scored on the Waste page. The aim is to ensure Environmental Services and Food Services are connected around the management and reduction of this important waste stream.

**39.** Does the facility have a plan or strategy to maximize food as a resource--including reducing wasted food?

- ☒ Yes  
☐ No

**39.a** Please attach any plan/policy to reduce wasted food.

**40.** Is the facility working on prevention/source reduction of food waste?

- ☒ Yes  
☐ No

Prevention and source reduction could include purchasing to avoid spoilage and expiration, just-in-time preparation, etc.

**40.a** Please describe any **prevention/source reduction** efforts for wasted food.

**41.** Is the facility working on food recovery and donation?

- ☒ Yes  
☐ No

Food recovery and donation includes re-serving and/or donating edible food.

**41.a** Please enter the tonnage of food **donated**:

**41.b** Dollar (\$) value of food donated:

**41.c** Does the facility have a **food waste donation plan/policy** that is implemented and tracked?

**41.c.a** Please attach food waste donation plan/policy:

**42.** Has the facility undertaken any efforts to **divert food waste** from the landfill or incinerator?

- ☒ Yes  
☐ No

**42.a** Please select the activities your facility is engaged in to divert food waste from landfill:

- ☐ Composting  
☐ Digestion  
☐ Animal Feed  
☒ Other

**42.a.d** Please describe other **diversion** method for food waste:

**42.a.e** Please enter tonnage from other **food waste diversion** method:

Note: Incineration is not considered a form of **diversion** under Practice Greenhealth guidelines.

**Total Tons of Food Waste Diverted from Landfill**

**42.b**

## Regulated Medical Waste

Please indicate the facility's **Regulated Medical Waste** totals in **Table C** below (enter a numerical response). If you cannot break out one of the waste types, please leave it blank and use the comments box to indicate which waste stream it is combined with; do not enter zero. If you are using a vendor that uses a **flat fee for integrated waste removal** (e.g., RMW and **solid waste** go out at the same price per lb), please enter your **tonnage**, but **DO NOT** include your **cost data** in **Table C** below, as it will skew the data set. All applicants must fill out **Current Year** tonnage and costs. If this year is your baseline year (e.g. first year of collecting accurate RMW data), please enter your **Current Year** totals in the **Baseline Year** column as well, but leave the **Previous Year** column **blank**.

### RMW Treated Onsite or Offsite:

Please include **all general RMW** in this number, including any RMW that is **treated onsite and landfilled**. If the facility normally combines treated RMW with its **solid waste**, please estimate weight or contact your facility's membership engagement liaison or the Awards Technical Assistance for guidance at [awards@practicegreenhealth](mailto:awards@practicegreenhealth) or 888-378-2259.

RMW generation can be weighed over a period of time and extrapolated to a year.

### Incinerated RMW

Please include any RMW that is incinerated, such as pathology waste, trace chemotherapeutic waste, or any waste that is segregated and removed by a licensed hauler for **medical waste incineration**. This category may be very small.

### Sharps

Sharps waste is typically tracked as a separate waste stream by **regulated medical waste** haulers and should be entered in the Sharps category. If sharps are incinerated, they can be included in the **Incinerated RMW** category, but it should be noted in the comments field that the waste streams are combined. If the facility uses a reusable sharps container service, make sure the sharps disposal data does not include the **weight of the containers**.

### Non-RCRA Pharmaceutical Waste

**Non-RCRA pharmaceutical waste** does not meet the EPA or state agencies' definition of **hazardous waste** but may still be dangerous to human health and the environment. Many health care institutions choose to use a vendor to manage this waste stream as incinerate-only to protect health. This waste stream is typically managed in a blue or white pharm waste container.

This waste stream can be incinerated as **municipal solid waste** (if so please track in **Table A**) or as **medical waste** (please track in **Table C**.) Please do not enter **non-RCRA pharmaceutical waste** in both tables or it will be double-counted! All **Non-RCRA pharmaceutical waste** data entered in either Table A or Table C will be **autopopulated** in **Table E. Pharmaceutical Waste** below.

**\*\*\*If your facility does NOT source-segregate non-RCRA pharmaceuticals into separate containers for disposal with a licensed hauler, DO NOT enter any data for non-RCRA pharm waste into either Table A or C. Please leave the cells blank.**

### Table C. Regulated Medical Waste

Regulated Medical Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current

RMW (treated onsite or offsite)	53.*	54.*	55.*	56.*	57.*	58.*
Sharps	59.*	60.*	61.*	62.*	63.*	64.*
Non-RCRA Pharmaceutical Waste	65.*	66.*	67.*	68.*	69.*	70.*
Incinerated RMW	71.*	72.*	73.*	74.*	75.*	76.*
RMW total waste	77.*	78.*	79.*	80.*	81.*	82.*

**RMW Waste Metrics Table**

For pounds RMW per staffed bed per day, median value was 1.77; data generally ranged from 0.6 to 6.08.

For tons of RMW per OR, median value was 6.1; data generally ranged from 1.7 to 23.

For pounds RMW per patient day, median value was 2.90, values generally ranged from 0.9 to 12.

83.* Staffed Beds:	84.* Operating Rooms:	85.* Patient Days:
0	0	0
86.* Pounds of RMW per Staffed Bed per Day	87.* Tons of RMW per OR	88.* Pounds of RMW per Patient Day
0	0	0

For hospitals and systems that use Adjusted Patient Day (APD), the median for **Pounds of RMW per Adjusted Patient Day** was 1.38 (values generally ranged from 0.54 to 4.0).

89.\* Does the facility incinerate any portion of its **regulated medical waste** (RMW)?

- ☒ Yes  
☐ No

89.a\* Please indicate which medical waste streams are incinerated:(Please select all that apply)

- ☐ General RMW  
☐ Path/Chemo  
☐ Sharps  
☐ Non-RCRA Pharm  
☐ Other

89.b\* Did you ensure that tonnage was tracked for incinerated waste in Table C. above?

- ☐ Yes  
☐ No

90.\* Does the facility disinfect/treat its RMW using **onsite technology**?

- ☒ Yes  
☐ No

Please do not include fluid management systems that empty to the sanitary sewer in this question.

90.a\* Which of the following **technologies** does the facility use to treat RMW onsite? (Select one).

- ☐ Autoclave  
☐ Rotoclave  
☐ Chemical disinfection  
☐ Incineration  
☐ Other

Please do not count autoclave(s) for Sterile Processing or laboratory. Only report primary onsite disposal method for RMW.

90.b\* If the facility treats its RMW onsite, this treated waste is disposed to:

- ☐ Landfill

- ☐ Municipal waste incineration  
☐ Waste-to-energy incineration  
☒ Other

**90.b.a\*** Please describe how treated waste is disposed of:

**90.c\*** How does the facility **track its RMW volume or weight** if it treats RMW onsite?

- ☐ The waste is weighed manually.  
☐ The equipment weighs the material and the facility tracks this weight.  
☐ It is estimated and tracked.  
☐ The treated RMW is considered part of solid waste volume.  
☐ The facility does not track this weight.  
☒ Other

**90.c.a\*** Please describe other method to track waste:

**90.d\*** Does the facility track the cost of treating RMW in-house?

- ☒ Yes  
☐ No

**90.d.a\*** The facility includes these costs of treating RMW in-house

- ☐ Power/utilities  
☐ Water/sewer  
☐ Staff time  
☒ Other

**90.d.a.a\*** Please describe tracking of costs of treating RMW in-house:

## RMW Reduction/Minimization Strategies

**91.\*** Has the facility **eliminated** the standard use of red bag waste (RMW) containers **in regular patient rooms**?

- ☐ Yes  
☐ No

**92.\*** Has the facility implemented a **Reusable Sharps Container** program?

**92.a\*** How many **tons of plastic** were diverted from the landfill (or other disposal) as a result of the reusable sharps container program?

\*Note: the tonnage should **only** be the tonnage of reused sharps containers and should not include sharps weight in that total.

**92.b\*** What are the cost-savings (actual or estimated) from diverting reusable sharps containers from the landfill?

**93.\*** Has your facility implemented a **medical device reprocessing** program with an FDA-approved third party reprocessor?

- ☐ Yes  
☐ No

A successful medical reprocessing program includes many patient care areas as well as the **operating room**. To simplify the application process, Practice Greenhealth is collecting all data pertaining to **medical device reprocessing** on the **Greening the OR section** of the Partner for Change application. Please enter all data pertaining to your facility's reprocessing collection and purchasing program - inside and outside the **operating room** - on that page.

## Pharmaceutical Waste

### Non-RCRA Pharmaceutical Waste

Segregating non-**RCRA** regulated pharmaceutical waste for incineration is currently considered a best management approach. For facilities using a pharmaceutical waste vendor (not Reverse Distribution), this may be a white or blue container--not to be confused with the container for trace chemotherapy. **Non-RCRA Pharmaceutical Waste** data is entered in **Table A** (if disposed of through municipal waste incineration) or **Table C** (if disposed of through RMW incineration). Data from Tables A or C will autopopulate **Table E. Pharmaceutical Waste** below. Pharmacy, Environmental Services, EH&S or your pharmaceutical waste vendor are good resources to identify the waste pharmaceutical tonnage.

If the hospital is NOT source segregating non-**RCRA** pharmaceuticals into a separate container, **do not report a number in either Table A or Table C.**

#### RCRA-Regulated Hazardous Pharmaceutical Waste

**RCRA hazardous pharmaceutical waste** is comprised of waste that is either listed as hazardous or meets the characteristics of **hazardous waste** in **EPA's Resource Conservation and Recovery Act (RCRA)** or via state agency. This waste stream should not be confused with red bag or "biohazardous" waste. For facilities using a pharmaceutical waste vendor (not Reverse Distribution), this may be a blue or black container.

Please enter the facility's **RCRA Hazardous Pharmaceutical Waste** totals in tons in Table E below. Entering **RCRA Hazardous Pharm Waste** data in this table will auto-populate **Table G. Hazardous Waste** below. Please also see the **NIOSH List of Hazardous Drugs in Healthcare Settings**.

All applicants must enter **Current Year** tonnage and costs. If this is the first year for which you have accurate pharmaceutical waste data, please enter your **Current Year** totals in the **Baseline Year** column as well (but leave the **Previous Year** column **blank**). If the facility does not segregate or track a particular waste type, leave that space blank and identify any combined waste streams in the comments box. **Do not enter zeros.**

Enter data in tons. Pounds can be easily converted to tons by dividing poundage by 2000.

**Table E. Pharmaceutical Waste**

Pharmaceutical Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
RCRA-Hazardous Pharmaceutical Waste	94.* <input type="text"/>	95.* <input type="text"/>	96.* <input type="text"/>	97.* <input type="text"/>	98.* <input type="text"/>	99.* <input type="text"/>
Non-RCRA Pharmaceutical Waste (MSW)	100.* <input type="text"/>	101.* <input type="text"/>	102.* <input type="text"/>	103.* <input type="text"/>	104.* <input type="text"/>	105.* <input type="text"/>
Non-RCRA Pharmaceutical Waste (RMW)	106.* <input type="text"/>	107.* <input type="text"/>	108.* <input type="text"/>	109.* <input type="text"/>	110.* <input type="text"/>	111.* <input type="text"/>
Total Pharmaceutical Waste	112.* <input type="text"/>	113.* <input type="text"/>	114.* <input type="text"/>	115.* <input type="text"/>	116.* <input type="text"/>	117.* <input type="text"/>

**Table F. Pharmaceutical Waste Metrics** (These numbers are only a rough guideline)

Total Pounds of Pharmaceutical Waste per Patient Day	Total Pounds of Pharmaceutical Waste per Adjusted Patient Day	Total Pounds of Pharmaceutical Waste per Staffed Bed/Day
118.* (The median value was 0.24 pounds per patient day; values generally ranged from 0.01 to 0.95) <input type="text"/>	119.* (The median value was 0.14 pounds/APD; values generally ranged from 0.01 to 0.50) <input type="text"/>	120.* (The median value was 0.15 pounds per bed per day; values generally ranged from 0.01 to 0.62) <input type="text"/>

**121.\*** Does the facility segregate **non-RCRA pharmaceutical waste** into a separate waste stream for hauling?

- ☒ Yes  
☐ No

**121.a\*** Did the facility ensure the data for **non-RCRA pharmaceutical waste** was added above in Table A or Table C (depending on the type of incineration used for disposal)?

- ☐ Yes  
☐ No

**Note:**Data should only be entered in one table or the other--**NOT both**.

**122.\*** If the facility has **not provided data for Non-RCRA Pharmaceutical Waste**, how is the facility is currently handling waste pharmaceuticals that are not regulated as **Hazardous Waste** (such as antidepressants, statins, antibiotics, etc.): Please select all that apply.

- ☐ We treat all pharm waste as RCRA-hazardous to better protect human health and the environment  
☐ Pharm waste is being disposed of in red bags or sharps containers  
☐ Pharm waste is going down the drain  
☐ Pharm waste is going into clear trash bags (solid waste)  
☒ Other



- ☐ I don't know
- ☐ We already provided data for non-RCRA pharm waste in the tables above.

**122.a\*** Please explain other methods for disposing of non-**RCRA** pharmaceuticals:

**123.\*** Please indicate if the facility taken any measures to **reduce the generation** of pharmaceutical waste in the past year:

- ☐ Staff education
- ☐ Inventory management
- ☐ Implemented a samples policy
- ☐ Monitored dating and utilized stock rotation for emergency syringes
- ☐ Prescription review
- ☐ Primed and flushed chemotherapy IV lines with saline solution
- ☐ Replaced prepackaged unit dose liquids with patient-specific oral syringes
- ☒ Other

**123.a\*** Please describe other measures taken to reduce pharmaceutical waste:

**124.\*** Does the facility utilize a reverse distributor for potentially creditable (unused, surplus or expired) **RCRA**-hazardous prescription pharmaceuticals?

- ☒ Yes
- ☐ No

**124.a\*** Did the facility ensure that potentially creditable **RCRA**-hazardous prescription pharmaceuticals sent for reverse distribution are included and accounted for in your hospital's pharmaceutical waste totals?

- ☐ Yes
- ☐ No
- ☐ We did not know this was a requirement

Per the EPA's 2019 **Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine:Final Rule**, prescription pharmaceuticals sent to reverse distributors are considered waste at the healthcare facility and must be accounted for in waste totals.

**125.\*** What **mechanism(s)** is the facility currently using for the **disposal of controlled substances**? Select all that apply.

- ☐ Wasting to drain
- ☐ Render irretrievable with a commercial controlled substance mechanism or service
- ☐ Solid waste landfill
- ☐ Solid waste incinerator
- ☐ Medical waste incinerator
- ☐ Hazardous waste incinerator
- ☒ Other

**125.a\*** Please describe other method of rendering **controlled substances** irretrievable:

## Hazardous Waste

Please enter the facility's **Hazardous Waste** total in tons in **Table G. Hazardous Waste** below. All applicants must enter **Current Year** tonnage and costs. If this is the facility's first year of tracking comprehensive waste data, please enter the **hazardous waste** tonnage from **Current Year** into the **Baseline Year** column as well (but leave the **Previous Year** column **blank**).

**Do not enter zeros for any year. All health care facilities generate some amount of hazardous waste.**

### Converting to Tons

If your **hazardous waste** is in gallons or a mix of gallons and pounds, please convert to tons. It is most accurate to convert gallons to tons using the specific gravity of the waste liquid. However, if this is unavailable, convert gallons to tons using a general conversion factor of 8.35 lbs=1 gallon (e.g., there are approximately 8.35 pounds in a gallon of liquid). Pounds can be easily converted to tons by dividing poundage by 2000.

**RCRA**-Regulated Pharmaceutical Waste totals will autopopulate from Table E.

### RCRA-Regulated Hazardous Waste

Please note that your facility's **hazardous waste** tonnage **should not be zero**.

**Hazardous waste** includes waste solvents, lab fixatives and stains, spill clean-up residue, lab packs, refrigerants, or any "listed" or "characteristic waste" per **RCRA** regulations. Check with your Laboratory Manager, Pharmacy Director, Safety Director, Hazardous Materials Coordinator,

**hazardous waste** hauler, Accounts Payable, or review waste removal manifests to identify **hazardous waste** removal documentation that will provide you with the data needed for this section. **Examples of hazardous waste** from the clinical laboratory can be found at: **Clinical Laboratory Waste**

Table G. **Hazardous Waste Table**

Hazardous Waste Stream	TONS per Year Baseline	TONS per Year Previous	TONS per Year Current	Annual Costs Baseline	Annual Costs Previous	Annual Costs Current
RCRA-Regulated Hazardous Waste	<u>126.*</u> <input type="text"/>	<u>127.*</u> <input type="text"/>	<u>128.*</u> <input type="text"/>	<u>129.*</u> <input type="text"/>	<u>130.*</u> <input type="text"/>	<u>131.*</u> <input type="text"/>
RCRA-Regulated Hazardous Pharmaceutical Waste	<u>132.*</u> <input type="text"/>	<u>133.*</u> <input type="text"/>	<u>134.*</u> <input type="text"/>	<u>135.*</u> <input type="text"/>	<u>136.*</u> <input type="text"/>	<u>137.*</u> <input type="text"/>
Total Hazardous Waste	<u>138.*</u> <input type="text"/>	<u>139.*</u> <input type="text"/>	<u>140.*</u> <input type="text"/>	<u>141.*</u> <input type="text"/>	<u>142.*</u> <input type="text"/>	<u>143.*</u> <input type="text"/>

### Hazardous Waste Minimization Activities

**144.\*** Does the facility contract for, or perform internally, a **hazardous chemical/material audit** by hospital department and update at least annually?

☒ Yes

☐ No

**144.a\*** Please attach hazardous chemical/material audit

**145.\*** Has the facility established a contract with a **certified electronics recycling vendor** that is **certified to e-Stewards** (or subcontractors that use **e-Stewards** certified vendors) for legal and environmentally responsible electronics (or e-waste) management and **recycling**?

Yes

Please enter tonnage and cost for **electronics recycling** in **Appendix A**

**146.\*** How does the facility handle its fluorescent lamps?

Other

**146.a\*** Please describe process to handle fluorescent lamps:

**Important Note:** The act of crushing fluorescent lamps releases mercury vapor into the atmosphere and is not recommended by the EPA or Practice Greenhealth. Crushed lamps must be removed as **hazardous waste** by a licensed **hazardous waste** hauler and cannot be counted toward **recycling** or **Universal Waste** totals. Learn more at **EPA's Mercury Lamp Drum Top Crusher Study (2006)**.

**147.\*** Does the facility recycle batteries?

☒ Yes

☐ No

**147.a\*** Please indicate which of the following types of batteries you recycle:

- ☐ Ni-Cd
- ☐ Lead-acid
- ☐ Lithium ion
- ☐ Alkaline
- ☐ Mercuric oxide
- ☐ Ni-MH
- ☐ Other

Please indicate tonnage and cost for the selected batteries in **Appendix A**.

**148.** Does your facility have an **onsite laboratory**?

☒ Yes

☐ No

**148.a\*** Has your facility done any work to green its laboratory?

- ☒ Yes  
☐ No

**148.a.a** Please describe green laboratory work in 2021:

Please only describe green laboratory work if completed in 2021--unless this is the first year your facility has filled out an award application.

**148.b\*** Does the facility **recycle, reprocess or distill solvents, alcohols or other chemicals** from the lab (such as xylene, alcohols or formalin)?

- ☒ Yes  
☐ No

Please enter **solvent distillation** data in Table H. In this table, please enter savings as a positive number. If you do not have one of the numbers, leave it blank, do not enter zero.

**Table H. Solvent Distillation**

Solvent	Gallons distilled annually	Annual savings from avoided virgin solvent purchase	Annual savings from reduced disposal costs
Xylene	<b>148.b.a*</b> <input type="text"/>	<b>148.b.b*</b> <input type="text"/>	<b>148.b.c*</b> <input type="text"/>
Alcohols	<b>148.b.d*</b> <input type="text"/>	<b>148.b.e*</b> <input type="text"/>	<b>148.b.f*</b> <input type="text"/>
Formalin	<b>148.b.g*</b> <input type="text"/>	<b>148.b.h*</b> <input type="text"/>	<b>148.b.i*</b> <input type="text"/>
Other	<b>148.b.j*</b> <input type="text"/>	<b>148.b.k*</b> <input type="text"/>	<b>148.b.l*</b> <input type="text"/>
Total gallons and costs	<b>148.b.m</b> 0 <input type="text"/>	<b>148.b.n</b> 0 <input type="text"/>	<b>148.b.o</b> 0 <input type="text"/>

Please indicate gallons of solvent reprocessed and cost in **Appendix A**.

## Waste Summary

The following tonnages and costs have been **automatically calculated** based on the information that was provided in Tables A, B,C, and G. If the numbers do not look accurate, check the tonnage and costs entered in those Tables.

**Table I. Total Waste Tonnage and Cost** (comprised of **Solid Waste**, **Recycling**, RMW and **Hazardous Waste**)

	Total Tonnage (Baseline)	Total Tonnage (Previous)	Total Tonnage (Current)	Total Cost (Baseline)	Total Cost (Previous)	Total Cost (Current)
Total Waste	<b>149.*</b> 0 <input type="text"/>	<b>150.*</b> 0 <input type="text"/>	<b>151.*</b> 0 <input type="text"/>	<b>152.*</b> 0 <input type="text"/>	<b>153.*</b> 0 <input type="text"/>	<b>154.*</b> 0 <input type="text"/>

**Table J. Total Waste Metrics**

Based on the information above, the facility's <b>total pounds of waste per patient day</b> is:	Based on the information above, the facility's <b>total pounds of waste per adjusted patient day</b> is:	Based on the information above, the facility's <b>total tons of waste per OR</b> is:
<b>155.*</b> (The median value was 46.0 pounds per patient day; values generally ranged from 20 to 160) 0 <input type="text"/>	<b>156.*</b> (The median value was 21.6 pounds per APD; values generally ranged from 10 to 50) 0 <input type="text"/>	<b>157.*</b> (The median was 84.2 tons per OR; values generally ranged from 30 to 300.) 0 <input type="text"/>

**Table K. Total Waste Percentages**

	% Waste (Baseline)	% Waste (Previous)	% Waste (Current)	% Cost (Baseline)	% Cost (Previous)	% Cost (Current)
Solid Waste [from Table A]	<b>158.*</b> 0 <input type="text"/>	<b>159.*</b> 0 <input type="text"/>	<b>160.*</b> 0 <input type="text"/>	<b>161.*</b> 0 <input type="text"/>	<b>162.*</b> 0 <input type="text"/>	<b>163.*</b> 0 <input type="text"/>

Recycling [from Table B]	<u>164.*</u> 0	<u>165.*</u> 0	<u>166.*</u> 0	<u>167.*</u> 0	<u>168.*</u> 0	<u>169.*</u> 0
RMW [from Table C]	<u>170.*</u> 0	<u>171.*</u> 0	<u>172.*</u> 0	<u>173.*</u> 0	<u>174.*</u> 0	<u>175.*</u> 0
Hazardous Waste [from Table G]	<u>176.*</u> 0	<u>177.*</u> 0	<u>178.*</u> 0	<u>179.*</u> 0	<u>180.*</u> 0	<u>181.*</u> 0

### Other Waste Program Successes

Please use the space below to describe your **most successful and/or innovative waste minimization, reduction, recycling, medical waste or hazardous waste management program(s)** in 2021. Practice Greenhealth not only scores these questions but also uses them to **identify great case studies** to share with the sector. Environmental benefit and cost-savings data appreciated. Please use complete sentences.

182.\* Waste Success 1:

183.\* Please attach any additional documentation (optional) for Waste Success 1:

184.\* Waste Success 2:

185.\* Please attach any additional documentation (optional) for Waste Success 2:

186.\* Additional documentation (optional):

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