



Appendix E: Records Review Worksheets

Complete a worksheet for each waste stream you are assessing. Examples and tips are provided at the bottom of the page. Summarize the totals on each worksheet on Worksheet E.6 Total Costs and then enter the totals into the Waste Assessment Summary in [Appendix D](#).

E.1 Solid Waste Worksheet

E.2 Recycling/Reuse Worksheet

Worksheet A – Recycling

Worksheet B – Reuse

Worksheet C – Calculating Costs

E.3 Regulated Medical Waste Worksheet

Worksheet A – Determining Costs and Volume

Worksheet B – Calculating Costs

E.4 Hazardous Chemical Waste Worksheet

E.5 Radioactive Waste

E.6 Total Costs



E.1 Solid Waste

SOLID WASTE WORKSHEET

DATE: _____

| A Location | B Container Type And Size | C Haul Schedule (See Table) | D Hauls Per Yr | E Cost Per Haul | F Total Haul Cost (D X E) | G Avg. Wt. Per Haul (lbs) | H Annual Weight Tons/Yr | I Tipping Fee/Ton* | J Total Tipping Cost (H X I) | K Other Costs | L Annual Cost (G+J+K) |
|---------------|------------------------------------|---|----------------------|-----------------------|---------------------------------------|------------------------------------|----------------------------------|--------------------------|--|---------------------|--------------------------------|
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| | | | | | \$ | \$ | | \$ | | \$ | \$ |
| TOTALS | | | | | \$ | | | \$ | | \$ | \$ |

| HAUL SCHEDULE | Conversion Factors |
|----------------------|--|
| 1. Prescheduled | 1 cubic yard liquid = 1616#. |
| 2. On Call As Needed | 1 cubic yard compacted waste ~ 1300#. |
| 3. Other | 1 cubic yard non-compacted MSW = 350#. |

E.1 Solid Waste - Example:

| A Location | B Container Type And Size | C Haul Schedule (See Table) | D Hauls Per Yr | E Cost Per Haul | F Total Haul Cost (D X E) | G Avg. Wt. Per Haul (lbs) | H Annual Weight Tons/Yr | I Tipping Fee/Ton* | J Total Tipping Cost (H X I) | K Other Costs | L Annual Cost (G+J+K) |
|---------------|------------------------------------|---|----------------------|-----------------------|------------------------------------|------------------------------------|----------------------------------|--------------------------|--|---------------------|--------------------------------|
| Loading Dock | 40 yd. Comp. | 1 | 104 | \$125 | \$13,000 | 8500 | 442 | \$95 | \$41,990 | \$ | \$54,990 |
| Clinic | 10 yd dumpster | 1 | 104 | \$87 | \$9,048 | 800 | 49 | \$95 | \$4,655 | \$2,400 | \$16,103 |
| TOTALS | | | | | \$22,048 | | 491 | \$ | \$46,645 | \$2,400 | \$71.093 |

Instructions for Completing Worksheet

1. Location/Container Size
 - List primary container first
 - Specify type and size and average weight per Haul

2. Hauling Schedule
 - The purpose of understanding haul schedules is to assess opportunities to reduce costs. Ask the following questions for each container:
 - Are the containers going out full?
 - Can you monitor fullness of containers and have the ability to minimize the number of hauls per month?
 - Is the container the appropriate size?
 - Can you alter the schedule to maximize the load and therefore reduce hauling costs?

3. Determine Weight: Average Weight Per Haul and Annual Weight
 - Actual weights are better but if you are being charged by the container and not the weight, please clarify and estimate weight.
 - Calculate annual tons by estimation (D x G) or total actual tare slips.

4. Costs
 - Tipping Fees: the per ton fees charged at the disposal site.
 - *If you are charged by the container or have a set hauling fee, then a Tipping Fee may not apply. In this case, your total cost might be the “Total Haul Cost.”
 - Other Costs: might include other transportation fees, or container lease or rental fees. Use annual costs.

E.2 - A RECYCLING DATA COLLECTION WORKSHEET

DATE: _____

| MATERIAL | Recycled? | | Reduction Strategy | Lbs. month | Revenue (Cost) /month |
|------------------------------|--------------------------|----|--------------------|------------|--------------------------|
| | YES | No | | | |
| Cardboard | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Paper, white | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Paper, mixed | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Newspaper | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Boxboard | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic, #1PET | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic, #2 HDPE | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic, #5 polypropylene | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic, #6 PS | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic, mixed | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Shrink wrap | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Glass, clear | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Glass, colored | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Glass, mixed | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Oil (cooking, motor) | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Steel cans | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Aluminum cans | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Food waste (composting) | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Food donation | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Pallets | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Wood | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Tyvek | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Transparencies | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Ink jet cartridges | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Foam peanuts | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Ice packs / coolers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Computers / equipment | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Toner cartridges | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Printer ribbons | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Sharps containers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Batteries | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Fluorescent lamps | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Landscape (composting waste) | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Construction & Dem. Debris | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Solvents/fixers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| X-ray film | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| TOTAL | | | | | |

E.2 - B REUSE DATA COLLECTION WORKSHEET

DATE:

| MATERIAL | Reused? | | Reduction Strategy | Avoided Disposal month* | Revenue (Cost) /month* |
|--------------------------|--------------------------|----|--------------------|-------------------------|--------------------------|
| | YES | No | | | |
| Dishware | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Cutlery | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Coffee Mug Program | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Glassware | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Kitchen Baking Pans | | | | | |
| Napkins | | | | | |
| Linens | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Pillows | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Mattress Overlays | | | | | |
| Patient Towels | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Washcloths | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Exam Gowns | | | | | |
| Surgical Gowns | | | | | |
| Surgical Towels | | | | | |
| Surgical Drapes | | | | | |
| Head and Shoe Covers | | | | | |
| Underpads (Chux) | | | | | |
| Patient Bath Basins | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Patient Emesis Basins | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Patient Water Pitchers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Surgical Basins | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Mattress | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Pulse Oximeters | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Plastic Face Shields | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Suture Removal Sets | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Trochars | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Vaginal Speculums | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Ambu Bags | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Ventilator Tubing | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Sharps Containers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Pallets/Skids | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Inter-office Mailers | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Toner/Ink Jet Cartridges | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Furniture | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Office Supplies | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| Distribution Totes | <input type="checkbox"/> | | | | <input type="checkbox"/> |
| | <input type="checkbox"/> | | | | <input type="checkbox"/> |

* Optional

E.3 - B REGULATED MEDICAL WASTE WORKSHEETS

Worksheet B - CALCULATING TOTAL COSTS OF REGULATED MEDICAL WASTE

| | General Infectious waste* | | Pathological* Waste | | Chemotherapy* Waste | | Total Annual Cost |
|--|---------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------|
| | Average per month costs | Annual Cost | Average per month costs | Annual Cost | Average per month costs | Annual Cost | |
| Volume – tons (Table A) | | | | | | | |
| Total Monthly Costs (Table A) | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Inhouse Treatment Costs: Validation Testing, etc. | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Equipment Rental/Lease (depreciation, maintenance) | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Supply Costs from hauler <ul style="list-style-type: none"> ▪ Boxes ▪ Reusable Containers ▪ Bags ▪ Tape ▪ Labels ▪ Other | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Labor <ul style="list-style-type: none"> ▪ # staff dedicated to boxing the waste? ▪ How much time is spent? ▪ Average hourly rate? Labor cost of boxing RMW = Time spent X number of staff X hourly rate: | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Other (ash disposal, etc.) | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Total | \$ | \$ | \$ | \$ | \$ | \$ | \$ |

Note:

- Some facilities segregate their general infectious and pathology waste for separate and different treatment methods. If you collect general infectious and pathological waste together, use the first column.
- Chemotherapy waste here is considered general, trace chemo waste – not RCRA regulated.
- It may be important to track these wastes separately because 1) there may a cost differential in disposal, 2) different training programs may be required to reduce each waste stream, 3) tracking volume data separately might indicate where improvements can be made.

E.6 TOTAL COSTS

| MONTH | SOLID WASTE | RECYCLING/ REUSE | REGULATED MEDICAL WASTE | HAZARDOUS CHEMICAL WASTE | RADIO-ACTIVE WASTE | TOTAL |
|---------------------|-------------|------------------|-------------------------|--------------------------|--------------------|-------|
| JANUARY | | | | | | |
| FEBRUARY | | | | | | |
| MARCH | | | | | | |
| APRIL | | | | | | |
| MAY | | | | | | |
| JUNE | | | | | | |
| JULY | | | | | | |
| AUGUST | | | | | | |
| SEPTEMBER | | | | | | |
| OCTOBER | | | | | | |
| NOVEMBER | | | | | | |
| DECEMBER | | | | | | |
| ANNUAL TOTAL | | | | | | |