



Guidance on Determining Whether Materials Are “Recyclable” Under E-Cycle Wisconsin

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Purpose

This document provides guidance to registered recyclers and manufacturers on determining whether materials derived from eligible electronic devices that are sent for disposal are eligible to meet manufacturer targets under the E-Cycle Wisconsin program.

Background

Wisconsin’s electronics recycling law (s. 287.17, Wis. Stats.) created a manufacturer-funded recycling program, called E-Cycle Wisconsin, for several types of electronics from households and K-12 schools.

Under s. 287.17 (2), Wis. Stats., a manufacturer of covered electronic devices—which include TVs, monitors, computers and desktop printers—must register annually with the Department of Natural Resources and meet an annual recycling target, based on the weight of covered electronics the manufacturer has sold in the state. Collectors and recyclers working on behalf of manufacturers must register with the DNR and meet certain requirements.

Wisconsin law does not prevent registered recyclers from sending recyclable materials from electronics for disposal. The disposal bans in s. 287.07 (5), Wis. Stats., apply to whole electronic devices. However, recyclable materials sent for disposal **are not eligible** to count toward manufacturer recycling targets. The weight of materials which are **not** recyclable and are a byproduct of the recycling process is eligible to count toward manufacturer recycling targets. State statutes do not define what constitutes “recyclable material.” Therefore, the DNR is providing this guidance to help recyclers, manufacturers and DNR staff determine in which cases material sent for disposal may still count toward a manufacturer’s recycling target.

Statutory definition of recycling and E-Cycle Wisconsin eligibility

Under s. 287.17 (5)(b), Wis. Stats., a manufacturer must report the total weight of eligible electronic devices that were collected by or delivered to the manufacturer, or to a registered recycler on behalf of the manufacturer, for recycling. **Recycling** is defined in s. 287.17(1)(m) as “preparing eligible electronic devices for use in manufacturing processes or for recovery of usable materials and delivering the materials for use.” It also specifies that recycling “does not include destruction by incineration or other processes or land disposal of **recyclable materials** and does not include reuse, repair, or any other process through which eligible electronic devices are returned for use by households or schools in their original form.”

In practice, not all material derived from eligible electronic devices may be recyclable, and a certain amount of residual material may have to be landfilled or incinerated. If the material sent to a landfill or incinerator is not recyclable, the weight would still be eligible to count toward a manufacturer’s recycling target because only **recyclable** material that is disposed of at a landfill or incinerator falls outside the definition of recycling.

Criteria for determining whether a material is not recyclable

Whether a component or material from eligible electronic devices is not recyclable, and thus may be disposed of through land disposal, or through destruction by incineration or other processes, while remaining eligible to count toward a manufacturer’s weight recycled under s. 287.17 (5) (b), Wis. Stats., is a case-by-case determination for each material type. A recycler or manufacture may submit to the DNR a request for a determination on a specific material. In making a determination, the DNR considers all the available information provided by the requester. S. NR 530.06 (1), Wis. Adm. Code, lays out the following criteria the DNR must consider:

- Current end markets for the material documented by a registered recycler.
- The efforts a registered recycler has documented to separate recyclable from non-recyclable components or materials.
- What percentage, by weight, of a device the component or material represents.
- Whether the material is hazardous waste.
- Other factors a registered recycler or the department considers relevant to the determination.

One of the DNR’s primary goals in applying these criteria are to ensure as much consistency as possible among registered recyclers and maintain a level playing field. Recordkeeping requirements are listed at the end of this guidance.

Materials considered not recyclable

The DNR believes the following materials do not have widespread, legitimate recycling markets. If a recycler can demonstrate to the DNR that it has made a reasonable effort to separate these materials from recyclable materials, the weight of these materials sent for disposal (landfill or incineration) can be counted for manufacturer credit.

- Plastics containing flame retardants or other “sink” plastic from sink/float sorting systems
- Plastic film and liquid crystal display (LCD) layers from flat-panel displays
- Wood casings from console or other TVs

DNR E-Cycle Wisconsin staff will discuss recyclability of materials on a case-by-case basis. Contact us at DNRWIE-cycling@wisconsin.gov if you have questions.

Reporting requirements for non-recyclable material sent for disposal

If, after applying the above criteria, the DNR determines a particular material or component is not recyclable, the registered recycler does not need to separately report the weight of this material sent for disposal on its annual E-Cycle Wisconsin recycler report. The weight of non-recyclable materials sent for disposal would remain included in the weight eligible to be assigned to registered manufacturers or brokers.

Calculating non-eligible weight from recyclable materials sent for disposal or storage

Wisconsin law does not prevent registered recyclers from sending recyclable materials from electronics for disposal. The disposal bans in s. 287.07 (5), Wis. Stats., apply to whole electronic devices. However, recyclable materials sent for disposal **are not eligible** to count toward manufacturer recycling targets.

It may be impossible for registered recyclers to determine whether specific loads of material sent to a landfill or incinerator are associated with E-Cycle Wisconsin because the materials may be comingled with those from other sources during processing. The amount of material sent for disposal may also vary from month to month, depending on the availability of markets.

Given these constraints, recyclers that dispose of recyclable material they generate from eligible electronics should take the following steps to estimate the weight not eligible for manufacturer credit for a given program year:

1. Estimate the percentage of the total weight of eligible electronic devices the recycler processed that is represented by the material in question (e.g., glass from cathode ray tubes represents X% of the total weight of eligible electronics processed).
2. Multiply the percentage in #1 by the total weight of eligible electronic devices received for recycling in a given program year.
3. Estimate the percentage, by weight, of the recycler’s total output of the material in question that was sent for disposal during the given program year (e.g., X% of cathode ray tube glass the recycler generated was sent for disposal during the program year).
4. Multiply #2 by #3 to estimate the weight of the recyclable material that was sent for disposal and is therefore not eligible for manufacturer credit.

For example, a recycler received 1,000,000 pounds of eligible electronics for recycling during a program year, and cathode ray tube glass represented 25% of the total weight, or 250,000 pounds. The recycler sent 10% of its cathode ray tube glass to a landfill. Therefore, 25,000 pounds are **not eligible** for manufacturer credit.

On its annual report submitted to the DNR, the recycler will need to subtract this non-eligible weight (25,000 pounds in the example above) from the weight of eligible electronic devices it received from registered collectors during the program year. There is a space on the online report form to enter this amount.

A similar process would apply if the recycler placed material from eligible electronics into long-term storage due to lack of markets. Recyclers should note that other solid and hazardous waste requirements limiting speculative accumulation may apply to stored material.

Recordkeeping requirements

Section 287.17 (8), Wis. Stats., requires registered recyclers to maintain the following records:

1. Records that can be used to determine, for each program year:
 - a. the total weight of eligible electronic devices recycled by the recycler on behalf of registered manufacturers;
 - b. the weight of materials derived from those eligible electronic devices that the registered recycler sends to another person for use in a manufacturing process or for recovery of usable materials; and
 - c. the weight of materials derived from those eligible electronic devices that the registered recycler sends to be disposed of in a solid waste disposal facility or burned at a solid waste treatment facility.
2. Records that do all of the following:
 - a. Identify each person who received from the registered recycler materials derived from eligible electronic devices recycled on behalf of manufacturers.
 - b. If a person identified under a. does not use the materials in a manufacturing process, identify each person who receives from the person identified under a. materials derived from eligible electronic devices recycled on behalf of manufacturers.
3. Records that show the actions that it takes in a program year to ensure that the persons identified under #2 use the materials derived from eligible electronic devices in a manufacturing process or for recovery of usable materials.

A registered recycler must maintain these records for at least three years and make them available for the DNR to inspect.



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