

# Electronics Processing Facility Requirements and Licensing Process

Guidance for Facilities that Recycle Electronics in Wisconsin  
PUB-WA-2031 2024



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This document provides an explanation of solid waste requirements for electronics processing facilities. It outlines the steps to obtain a solid waste processing approval and license from the Department of Natural Resources. For questions about which requirements apply to a specific situation or activity, contact the DNR at [DNRWle-cycling@wisconsin.gov](mailto:DNRWle-cycling@wisconsin.gov).

## Definitions and background

Definitions are provided to help make this document easier to understand. A citation is provided when definitions are specified in law.

An **electronic device** is a device that requires electric current or electromagnetic fields to function and that contains a circuit board but does not include a major appliance or a motor vehicle [s. NR 500.03 (71g), Wis. Adm. Code.]

**A waste electronic device** is a term used in s. NR 502.07, Wis. Adm. Code to describe used electronics intended for recycling or disposal.

**A facility** means a solid waste facility [s. NR 500.03 (78), Wis. Adm. Code]. For the purpose of this document, this includes any person, business or organization involved in collecting, storing, transporting, recycling (processing) or refurbishing electronics.

**Electronics processing** means processing electronic devices for use in manufacturing processes or for recovery of usable materials and includes disassembling, baling, crushing, grinding and shredding electronics or their components [s. NR 500.03 (71m), Wis. Adm. Code].

### Cathode ray tubes and universal waste

There are specific hazardous waste requirements for cathode ray tubes, found in older TVs and monitors, and for many hazardous components in electronics. Batteries, lamps and mercury-containing components removed from electronics can be managed under universal waste requirements. For more information, refer to [Managing Used Electronics and Components \(WA-1307\)](#).

Electronics processing **does not include** any of the following:

- Destruction by incineration or other processes.
- Land disposal of recyclable materials.
- Reuse, repair, or any other process through which an electronic device is returned for use in its original form.
- Removal of an electronic device from another device, such as from a major appliance or motor vehicle.
- Hand disassembly of an electronic device in an educational setting for educational purposes.
- Hand disassembly of a waste electronic device generated by a household on the property where it is generated.

**Solid waste processing** includes processing electronics devices for use in a manufacturing process or for recovery of usable materials.

## Who needs a solid waste processing license?

Wisconsin facilities that process electronic devices or components for the purpose of recovering usable materials by disassembling, baling, crushing, grinding, shredding or similar methods must obtain a solid waste processing plan of operation approval and license from the DNR under [s. NR 502.08, Wis. Adm. Code](#). A facility must renew its processing license each year. There is no fee for the license when the primary purpose is recycling.

The following types of facilities are exempt from processing license requirements under s. NR 502.08, Wis. Adm. Code, as long as they follow applicable performance standards, closure requirements and minimum operation requirements:

1. A person or facility processing fewer than 25 waste electronic devices per year.
2. Collection sites and other facilities that only hand sort and package waste electronic devices (including removing cords, ink/toner cartridges or batteries from electronic devices) for shipping or transport to an electronics processing facility.

If your facility already has a solid waste processing license from the DNR, contact DNR staff at [DNRWle-cycling@wisconsin.gov](mailto:DNRWle-cycling@wisconsin.gov) to discuss the best way to update your plan of operation to include your electronics processing activities.

In addition to processing license requirements, if waste electronic devices awaiting processing are stored off-site (not in the processing facility), the off-site location will likely need a solid waste storage license under [s. NR 502.05, Wis. Adm. Code](#).

Refer to the [Definitions and background](#) section above for a list of activities that do not meet the definition of electronics processing and do not require a solid waste processing license.

## Solid waste requirements for electronics processing facilities

### Locational requirements

Electronics processing facilities that are not otherwise exempt must meet locational criteria listed under [s. NR 502.08 \(3\), Wis. Adm. Code](#). These requirements are designed to ensure the proposed processing facility will not create an adverse effect on surface water, wetlands, groundwater, etc.

## Operational requirements

Electronics processing facilities that are not otherwise exempt under [s. NR 502.08 \(2\), Wis. Adm. Code](#), must meet the minimum operational requirements listed under [s. NR 502.08 \(6\), Wis. Adm. Code](#). Review these requirements before beginning the licensing process to ensure your facility is or will be meeting them.

The DNR anticipates some facilities may wish to request an exemption from the two requirements identified below and has created checkboxes on the *Electronics Processing Facility Plan of Operation Application* to serve as a written exemption request:

- Under s. NR 502.08 (6) (a), Wis. Adm. Code, “access to the processing facility shall be limited to those times that an attendant is on duty.” There is a checkbox for facilities to indicate the facility is not open to the public. Checking this box serves as a request for an exemption from this operational requirement.
- Under s. NR 502.08. (6) (f), Wis. Adm. Code, “solid waste which is flammable or explosive may not be accepted.” Electronics processing facilities most likely accept lithium-ion batteries and/or devices containing lithium-ion batteries. There is a checkbox for facilities to indicate they accept lithium-ion batteries or materials containing lithium-ion batteries. Checking this box serves as a request for an exemption from that operational requirement.

Contact the DNR with any questions related to how to meet the minimum operational requirements or whether an exemption may be applicable.

## Closure costs and owner financial responsibility (OFR)

Electronics processing facilities that are not otherwise exempt must set aside money for closure and cleanup costs. Owner financial responsibility requirements make sure there will be enough funds to close the facility and clean up any remaining materials if the facility’s operator or owner abandon it or do not have money to clean it up. OFR requirements are outlined in [s. NR 502.04 \(6\), Wis. Adm. Code](#) and [ch. NR 520, Wis. Adm. Code](#).

As part of the license and approval process, facilities must establish a cost estimate for closure of the facility and submit it with the plan of operation. Electronics processors are encouraged to use the *Electronics Recycler Cost Estimate (Form 4400-320)*.




Within 60 days of DNR approval of the plan of operation and closure cost estimate, and before the DNR will issue an operating license, the facility must establish and submit their OFR proof mechanism (i.e.: letter of credit, surety bond, deposit account, or other method described in [s. NR 520.06, Wis. Adm. Code](#)). The OFR proof mechanism must equal or exceed the closure cost estimate approved in the plan of operation, including an adjustment for the annual inflation rate.

The OFR proof mechanism requires annual adjustments to account for inflation. The approved cost estimate also needs to be revised at least every ten years to reflect current market values or when changes in the plan of operation impact the cost estimate.

Registered E-Cycle Wisconsin recyclers obtaining an electronics processing facility approval and license must also comply with requirements in [s. 287.17 \(8\) \(c\) 3., Wis. Stats.](#), and [s. NR 530.09 \(4\), Wis. Adm. Code](#). Contact the DNR with any questions.

# Approval and licensing process

The table below shows the steps of the plan of operation approval and licensing process. Maximum review times are noted. Actual DNR review times will depend on a variety of factors, including staff workload and when a submittal is determined to be complete.

Initial Site Inspection (ISI)	
Facility	DNR
<ul style="list-style-type: none"> <li>✓ Submit request for an initial site inspection ISI (<i>Form 4400-209</i>)</li> <li>✓ Submit payment for ISI fee invoice*</li> </ul>	<ul style="list-style-type: none"> <li>✓ Review ISI application for completeness and issue ISI fee invoice*</li> <li>✓ Complete initial on-site or desktop inspection (<i>up to 22 business days after receiving complete application and payment</i>)</li> <li>✓ Issue ISI opinion (<i>up to 22 business days after inspection</i>)</li> </ul>
	
Plan of Operation	
Facility	DNR
<ul style="list-style-type: none"> <li>✓ Submit plan of operation (<i>Form 4400-010</i>)</li> <li>✓ Include closure cost estimate (<i>Form 4400-320</i>) and all required supporting documents</li> </ul>	<ul style="list-style-type: none"> <li>✓ Review plan of operation and supporting documents for completeness</li> <li>✓ Contact facility if additional information is needed or begin plan of operation review</li> <li>✓ Issue plan of operation decision (<i>up to 65 business days from receiving complete application</i>)</li> </ul>
	
Obtain Owner Financial Responsibility	
Facility	DNR
<ul style="list-style-type: none"> <li>✓ Establish proof of OFR for closure using approved method (letter of credit, surety bond, etc.)</li> <li>✓ Submit proof of OFR and all required supporting documents</li> </ul>	<ul style="list-style-type: none"> <li>✓ Confirm proof of owner financial responsibility is received and meets requirements (<i>typically within 5-10 business days of receipt of OFR</i>)</li> </ul>
	
Licensing	
Facility	DNR
<ul style="list-style-type: none"> <li>✓ Submit initial license application (<i>use Form 4400-088</i>)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Issue processing facility license (<i>up to 10 business days from receiving complete application</i>)</li> </ul>

\* Until June 30, 2024, the DNR may waive the ISI fee for facilities registered as collectors or recyclers under E-Cycle Wisconsin program before July 1, 2023.

# Initial site inspection (ISI) application

The first step in the approval process is to request an initial site inspection [[s. NR 502.04\(2\), Wis. Adm. Code](#)]. The primary purpose of the ISI is to evaluate whether a facility's physical location is likely to meet locational criteria and performance standards for a solid waste processing facility before the facility submits a location-specific plan of operation.

To request an ISI, submit the following materials electronically:

1. A cover letter requesting the ISI, along with a brief description of the proposed electronics solid waste facility design and operation.
2. A completed copy of *Ch. NR 502 Non-Landfill Solid Waste Facility Initial Site Inspection (ISI) Application (Form 4400-209)*.
3. Any applicable attachments identified under Section V of the ISI application.

The DNR has 22 business days to conduct an inspection after receiving a complete ISI request and payment (if applicable) and 22 business days after that to issue an ISI opinion (44 business days total). An ISI opinion advises the facility whether the location is likely to be a good fit and does not guarantee or prevent approval of the plan of operation.

There is a \$550 fee for the ISI. Until June 30, 2024, the DNR may waive this fee for facilities that were registered as E-Cycle Wisconsin collectors or recyclers before July 1, 2023. All other facilities and proposed facilities will receive an invoice, which must be paid before an inspection will be scheduled.

## Tips for completing the ISI request

This section is intended to provide clarification on common areas of confusion and may not address all components of the initial site inspection submittal.

### COVER LETTER

The cover letter should include the following:

- Your request for an initial site inspection of the electronics processing facility.
- A brief description of the facility design and operations, including:
  - Sources electronics are received from (e.g.: households, businesses, schools, institutions, etc.).
  - The types of electronics that are accepted and which types are processed at the facility versus sent to another recycler.
  - A brief description of how materials are processed (e.g., hand disassembly, specific types of machinery, etc.).

### ISI APPLICATION

Make sure all fields of the application are completed.

#### Section I – Facility Information

- **Legal Description of Property**  
This information is commonly found on a property bill or deed. You may also search the property address using the State Cartographer's Office PLSS locator website: <https://maps.sco.wisc.edu/plss-locator/>.
- **Latitude and Longitude**  
This information may be found by searching the property address using the PLSS locator website or a web-based mapping platform, such as Google Maps.

## Section II – Proposed Solid Waste Facility

Select the appropriate facility type. Most electronics processors will select one of the following two types of facilities:

- **Group A: Outside Storage, NR 502.05**  
Facilities with indoor processing that also have outdoor storage. Outdoor storage is any area where materials are kept that is not fully enclosed and protected from the elements. Facilities indicating Group A with outside storage must complete Section III – Locational Criteria.
- **No Group: Inside Processing, NR 502.08(3)(b)**  
Facilities with indoor processing and all storage is within an enclosure. This may include trailers that are stored on the property but are loaded at a loading dock. Facilities indicating No Group with indoor storage only should skip to Section IV – Performance Standards.

Section II – Proposed Solid Waste Facility (select the appropriate facility)	
Group A:	<input checked="" type="radio"/> Outside Storage, <a href="#">NR 502.05</a> <input type="radio"/> Less than 50 tons/day Storage, <a href="#">NR 502.05(3)(k)</a> <input type="radio"/> Outside Processing, <a href="#">NR 502.08</a>
Group B:	<input type="radio"/> Transfer, <a href="#">NR 502.07</a> <input type="radio"/> Less than 50 ton/day Transfer, <a href="#">NR 502.07(2r)</a>
Group C:	<input type="radio"/> Non-Exempt Compost <a href="#">NR 502.12</a>
Group D:	<input type="radio"/> Less than 20,000 cy Yard Residuals Composting, <a href="#">NR 502.12(6)</a> <input type="radio"/> Less than 5,000 cy Source-Separated Compostable Material Composting, <a href="#">NR 502.12(7)</a>
Group E:	<input type="radio"/> Incinerator, <a href="#">NR 502.09</a>
Group F:	<input type="radio"/> Air Curtain Destructor, <a href="#">NR 502.10</a>
Group G:	<input type="radio"/> Woodburning, <a href="#">NR 502.11</a>
Group H:	<input type="radio"/> Municipal Solid Waste Combustor, <a href="#">NR 502.13</a>
<b>No Group: Solid Waste Facilities that cannot be located in a floodplain, but are not subject to other locational criteria. (Go to Section IV)</b>	
<input type="radio"/> Inside Storage, <a href="#">NR 502.05(4)(b)</a> <input type="radio"/> Inside Infectious Waste Storage, <a href="#">NR 526.09</a> <input checked="" type="radio"/> Inside Processing, <a href="#">NR 502.08(3)(b)</a>	
<input type="radio"/> Inside Transfer, <a href="#">NR 502.07(3)(b)</a> <input type="radio"/> Above Ground Air Curtain Destructor <a href="#">NR 502.10(2)(b)</a>	
<b>Solid Waste Facilities that are not subject to specific locational criteria. (Go to Section IV)</b>	
<input type="radio"/> Non-Commercial Soil Borrow Site for the construction of a non-landfill solid waste facility, <a href="#">NR 502.04(2)(a)9</a>	

## Section V – Attachments

- **Question 1**  
All facilities must provide a regional map or aerial image meeting the specifications listed. You may choose to use a web-based mapping platform, such as Google Maps or a county GSI map. For facilities with outdoor storage, make sure to include the outdoor storage area within the facility property boundary.
- **Question 2**  
Fully read the question and mark the appropriate response. Most facilities will mark “Not applicable” for parts a. and b.

## Plan of operation application

After receiving the ISI opinion from the DNR, a facility’s next step is to submit a plan of operation addressing all requirements listed under [s. NR 502.08 \(4\), Wis. Adm. Code](#). The DNR recommends using the *Electronics Processing Facility Plan of Operation Application (Form 4400-010)*, to make sure all required information is submitted for a complete plan of operation.

Facilities must submit the following materials electronically to apply for a plan of operation approval:

1. A cover letter briefly describing the proposed electronics solid waste processing facility design and operation, including request for approval of the plan of operation.
2. A table of contents listing all sections of the submittal.
3. A completed copy of the plan of operation and any referenced attachments, including facility maps and drawings.
4. A closure cost estimate (facilities are encouraged to use the *Electronics Recyclers Closure Cost Estimate* (Form 4400-320)).

The DNR has 65 business days from receiving a complete plan of operation submittal to perform the plan review and issue an approval or denial. The actual review time will depend on the number of other projects being reviewed and whether additional information is needed from the facility over the course of the review.

Once approved, a facility must continue to operate based on the information and supporting documents detailed in its approved plan of operation. Any changes to specific plan details may require a plan modification request to the DNR.

The plan of operation must include a set of engineering plans and maps containing information required under [s. NR 502.08 \(5\), Wis. Adm. Code](#). Official engineering plans with the seal of a certified professional engineer may not be applicable for all facilities. Contact DNR staff with any questions about this requirement.

There is no plan review fee for most electronics processing facilities because of the primary goal to recover and reuse materials.

## Tips for completing the plan of operation

This section is intended to provide clarification on common areas of confusion and may not address all components or questions of the plan of operation submittal.

### COVER LETTER

The cover letter should include the following:

- Your request for approval of the plan of operation for your electronics processing facility.
- A brief description of the facility design and operations, including:
  - Sources electronics are received from (e.g.: households, businesses, schools, institutions, etc.).
  - The types of electronics that are accepted and the types that are processed at the facility vs. sent to another recycler.
  - A brief description of the process flow of materials, including how they enter the building, where they're stored, and how materials are processed (e.g., hand disassembly, specific types of machinery, etc.).

### PLAN OF OPERATION APPLICATION

Make sure all fields of the application are completed.

Review the materials submitted with your ISI request. If any of the information has changed, contact DNR staff to discuss how it may impact your plan of operation materials.

### Section 4 – Operation and Maintenance Plans

- **Question 9**

The DNR recommends facilities only provide a general description of outlets (e.g., aluminum smelters in the U.S.), rather than the names of outlets, to avoid having to submit a plan modification request and obtain written DNR approval any time outlets change. Facilities must maintain records, including outlet names, addresses and permit/license number at the facility, and make them available to the DNR upon request.
- **Questions 9 and 10**

Make sure the total combined estimated annual tonnage listed between these questions equals the estimated annual tonnage listed in Question 7.

- **Questions 11, 12 and 13**  
These questions may not be applicable for facilities hand disassembling materials only. Fully read the question and if it's not applicable, write "not applicable" and provide a brief explanation.
- **Question 17**  
Facilities with outdoor (unenclosed) storage must provide this information.
- **Question 21**  
Your answer should include the types of access roads to the facility (e.g., asphalt, gravel, etc.).
- **Question 23**  
This question is to confirm the facility design supports the quantities of solid waste accepted and generated. Make sure to answer each of the bullet points in reference to the size and configuration of the facility grounds, buildings, equipment and if applicable, drainage structures.

### Section 5 – Engineering Plan and Facility Maps

All facilities must submit materials for questions 1 and 2. Fully read the section summary to determine whether your facility must submit materials for questions 3 and/or 4.

- **Question 1**  
Read through the listed specifications. Existing facilities will most likely use the same map or aerial photo submitted with the ISI application.
- **Question 2**  
Read through the listed specifications. This map/drawing should include the footprint of the building(s). Using outlines and labels, indicate the areas of receiving, processing, loadout, storage, and major facility equipment. If applicable, indicate floor drains, process sewers and other pertinent design features.

Facilities submitting a plan of operation in a format other than the Electronics Processing Facility Plan of Operation Application (Form 4400-010) must make sure their submittal:

- Addresses all required elements under s. NR 502.08, Wis. Adm. Code; and
- Includes an explanation for any requirements that do not apply to facility operations.

The DNR also recommends including statements confirming the following:

- Electronics processing operations will be performed indoors.
- Whether the facility will accept lithium-ion batteries or materials containing lithium-ion batteries.
- Whether the facility is open to the public.
- Whether the facility will only hand sort and dismantle materials and will not use mechanized equipment.

## License application and renewal

Once a facility has received a plan of operation approval from the DNR and established proof of OFR for closure, the final step is to complete the *Solid Waste Facility License Application (Form 4400-088)*. The DNR will issue an electronics processing facility license within 10 business days of receiving a complete license application. The license must be renewed annually.

There is no licensing fee for most electronics processing facilities because of the primary goal to recover and reuse materials.



## Reporting requirements

### Annual reporting

Once licensed, facilities must maintain and submit records of facility performance to the DNR upon request [[s. NR 502.08\(6\)\(L\), Wis. Adm. Code](#)].

As specified in the plan approval, facilities must submit an annual report by March 1 each year that includes the following information from the previous calendar year. The DNR will provide a form to submit this annual report. This is separate from E-Cycle Wisconsin reporting.

1. A table identifying the categories and total weight (in tons) of:
  - all electronic devices and materials derived from electronic devices received by the facility;
  - all electronic devices and materials derived from electronic devices processed by the facility;
  - all waste electronic devices or materials derived from waste electronic devices shipped for recycling or further processing;
  - all electronic devices shipped for refurbishment or reuse; and
  - all electronic devices or materials derived from electronic devices shipped for disposal.
2. An itemized list of the types of recycling and disposal outlets used, and the total tons shipped to each type of outlet (e.g., scrap metal recyclers).
3. The total quantity of waste electronic devices or materials derived from electronic devices stored on-site as of Dec. 31.
4. A discussion of any operational problems encountered under the plan of operation, actions to resolve problems, and actions taken to prevent their reoccurrence.

### Other required documentation

Facilities will not be asked to report the names of specific outlets used on the annual report. However, they must maintain records with the following information and make them available to the DNR upon request:

- outlet/disposal facility name;
- address;
- permit/ license number (if applicable); and
- total tons shipped to each outlet, including supporting documents (e.g., bill of lading).

Electronics processing facilities must also notify any collection and transportation services they contract with for the collection and transportation of waste electronic devices or components derived from electronic devices destined for reuse or recycling of the need to comply with the operational requirements under [s. NR 502.06 \(2\) \(ag\), Wis. Adm. Code](#) [[s. NR 502.08\(6\)\(p\), Wis. Adm. Code](#)]:

1. Notification must be in writing and provided at the time of entering into a contract for collection and transportation services and annually thereafter.
2. Facilities must maintain documentation of the notification for the preceding calendar year.

## More information

Refer to <https://dnr.wisconsin.gov/topic/Waste/SWForms.html> for links to the forms referenced in this document. For more information on this subject, including other publications, staff contacts and administrative codes and statutes, go to [dnr.wi.gov](#) and search “electronics processing”.

**Mailing address:** DNR Waste and Materials Management Program, PO Box 7921, Madison, WI 53707

**Email:** [DNRWle-cycling@wisconsin.gov](mailto:DNRWle-cycling@wisconsin.gov)

***Disclaimer:** This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.*

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