

**Wisconsin Department of Natural Resources
Natural Resources Board Agenda Item**

Item No. 4.A.

SUBJECT:

Request adoption of Board Order WA-11-19, proposed rules to revise chapters NR 500, 502 and 520 and create chapter NR 530 for the purpose of implementing electronics recycling program requirements.

FOR: October 2021 Board meeting**PRESENTER'S NAME AND TITLE:** Kate M. Strom Hiorns, Recycling and Solid Waste Section Chief**SUMMARY:**

The purpose of the proposed rule is to create a new administrative code chapter under the authority of s. 287.17, Wis. Stats., and to amend chs. NR 500, 502 and 520, Wis. Adm. Code, as they relate to electronics collection and recycling. The goals of this rulemaking are to:

- Ensure the E-Cycle Wisconsin program continues to function well by codifying numerous streamlined procedures developed by the department working with industry, keeping the program up to date with developments in the electronics industry, and preserving a level playing field among program participants.
- Protect human health and the environment by providing oversight of electronics recycling operations that is more consistent with oversight of other waste and material processing in Wisconsin.

Many elements in the rule come directly from discussions with E-Cycle Wisconsin stakeholders, whose concerns included a need for more actions to deter bad actors; a lack of consumer awareness about the need to recycle electronics responsibly; and economic and safety issues the changing electronic waste stream has brought to collectors and recyclers. Changes the proposed rule would make to existing practices include:

- Requiring most Wisconsin facilities that dismantle electronics to obtain a solid waste processing license from the department and maintain owner financial responsibility for closure and cleanup costs.
- Setting locational/operational standards for those collecting, storing or transporting electronic waste in Wisconsin.
- Clarifying and strengthening owner financial responsibility requirements for registered E-Cycle Wisconsin recyclers, including making sure requirements for out-of-state facilities are equivalent to those for in-state facilities.
- Detailing how electronics retailers must inform customers about electronics disposal bans and recycling options.
- Adding phones with video displays to the list of eligible electronics under E-Cycle Wisconsin.
- Clarifying that some components of video game systems meet the definition of a consumer computer and manufacturers of these devices need to register with the department and meet annual recycling targets.

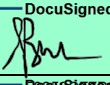
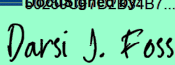
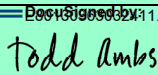
The rule is expected to have a minimal (level 3) impact on small businesses.

The board approved the scope statement for this rule Dec. 11, 2019. The department has completed the external review process for Board Order WA-11-19, which includes holding a public hearing and review by the Legislative Council Rules Clearinghouse. Comments received have been considered in the draft final rule. If the final rule language of WA-11-19 is approved, the rule will be submitted to the Governor and, if the Governor approves, to the legislature for review and approval. The 30-month time frame for submission of a final rule to the legislature for approval expires on March 3, 2022.

RECOMMENDATION: That the Board adopt Board Order WA-11-19.**LIST OF ATTACHED MATERIALS (check all that are applicable):**

- | | |
|---|---|
| <input checked="" type="checkbox"/> Background Memo | <input type="checkbox"/> Attachments to background memo |
| <input checked="" type="checkbox"/> Fiscal estimate and economic impact analysis (EIA) form | <input checked="" type="checkbox"/> Board order/rule |
| <input checked="" type="checkbox"/> Response summary | |

for

Approved by	Signature	Date
George B. Wolbert, Waste & Materials Management Program Director		8/16/2021 1:56 PM CDT
Darsi J. Foss, Environmental Management Division Administrator		8/16/2021 2:42 PM CDT
Preston D. Cole, Secretary		8/16/2021 3:03 PM CDT

by Todd Ambs

cc: Board Liaison - AD/8



Program attorney – LS/8

Department rule officer – LS/8

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CORRESPONDENCE/MEMORANDUM

DATE: August 18, 2021

TO: All Members of the Natural Resources Board

FROM: Preston D. Cole, Secretary

SUBJECT: Background memo on Board Order WA-11-19, relating to revisions to chapters NR 500, 502 and 520 and creation of chapter NR 530 for the purpose of implementing electronics recycling program requirements.

1. Subject of Proposed Rule:

The proposed rule addresses revisions to chapters NR 500, 502 and 520 and creation of chapter NR 530 for the purpose of implementing electronics recycling program requirements.

2. Background:

Wisconsin's electronics recycling law (2009 Wisconsin Act 50) established a statewide product stewardship program to collect and recycle certain electronics from Wisconsin households and schools (now in s. 287.17, Wis. Stats.) called E-Cycle Wisconsin. This recycling program is funded by manufacturers of TVs, computers, monitors and printers. The law also banned landfill and incinerator disposal of many electronics beginning in September 2010 under s. 287.07 (5), Wis. Stats.

To date, the department has not promulgated rules related to ss. 287.07 (5) or 287.17, Wis. Stats. Section 287.17, Wis. Stats., was intended to be detailed enough for the department to complete initial implementation without rulemaking and prohibited the department from promulgating rules during the first two years of the program.

Since 2009 Wisconsin Act 50 took effect, the electronics industry has changed significantly. The state's electronics recycling industry has grown and matured, and relationships among electronics collection points, consolidation points, recycling facilities and electronics manufacturers have become more complex. The department has worked extensively with program participants over the years to develop and improve streamlined, online registration and report forms. These allow the department to verify the accuracy of information that collectors, recyclers and manufacturers report, and also provide data to update a public list of electronics recycling options in real time, which the department identified as a high priority based on statewide surveys of Wisconsin households. In addition, the department has worked with stakeholders to put in place a flexible and efficient marketplace for the buying and selling of credit for recycled eligible electronic devices, making it easier for manufacturers to meet their recycling targets and for recyclers to recover costs. The proposed new ch. NR 530, Wis. Adm. Code, codifies many of these improved and streamlined registration and reporting practices.

3. Why is the rule being proposed?

Prior to the electronics recycling law's enactment in 2009, and anticipating increasing volumes of electronic devices reaching the end of their service life, the department modified requirements for electronics recycling to encourage development of e-cycling infrastructure. The department exempted electronics recyclers from solid waste processing license requirements under s. NR 502.08 (2) (f), Wis. Adm. Code, as "Facilities for the processing of scrap iron, steel or nonferrous metal using large machines to produce a principal product of scrap metal for scrap or use for remelting purposes." Transporters were also exempted from solid waste transporting requirements under s. NR 502.06 (2) (a), Wis. Adm. Code, as "Services for the collection and transportation of only gravel pit spoils,

quarry materials, earth materials or salvageable materials other than those listed in s. 287.07 (3) or (4), Stats.”

Since the department made these policy decisions, there have been several significant changes in the electronics recycling landscape that have led the department to re-examine this interpretation with this rulemaking and seek to define requirements for electronics collection, transportation and recycling activities. These included:

- Significant growth in Wisconsin’s electronics recycling infrastructure, due largely to 2009 Wisconsin Act 50, including the rapid growth among a handful of high-tech recycling facilities in the state.
- An increase in enforcement cases resulting from irresponsible recyclers or “scrappers” removing high-value metals from electronics while illegally leaving hazardous materials behind. Since 2015, the department estimates these cases have led to more than \$2 million in completed or projected cleanups. The majority of these costs are covered either by taxpayers or by landlords who own the properties on which the material has been mismanaged.
- Changes in the market for glass from cathode ray tubes (CRTs), which have made recycling older TVs and monitors much more expensive and led to stockpiles of CRTs and lead-containing CRT glass which is a hazardous waste.
- Greater public awareness of the need to recycle electronics, and more demand for legitimate recyclers providing these services.
- The rapid and continued evolution of electronics, which has changed both the commodity value of electronic waste and the methods and tools needed to properly recycle it. Newer electronics have a lower metal content (more valuable as commodities) with a commensurate increase in plastic components with a lower commodity value. They contain fewer toxic materials, but more flammable, difficult-to-remove lithium ion batteries, which add labor and fire prevention costs.

Many elements in the rule come directly from discussions with E-Cycle Wisconsin program stakeholders over the years. At the most recent E-Cycle Wisconsin stakeholder meeting in May 2018, participants were generally supportive of the existing electronics recycling law, but noted several areas of concern, including a need for more actions to deter bad actors; the lack of affordable, convenient recycling for some state residents; a lack of consumer awareness about the need to responsibly recycle electronics; and economic and safety issues the changing electronic waste stream has brought to collectors and recyclers. The department has addressed these concerns in the proposed rule.

4. Summary of the rule.

Changes to existing chs. NR 500, 502 and 520, Wis. Adm. Code

The department is proposing the following changes to chs. NR 500, 502 and 520, Wis. Adm. Code, to ensure safe collection, transportation and processing of electronic waste and to make regulation of these activities more consistent with other types of solid waste:

A. Definitions: The rule creates and amends definitions in s. NR 500.03, Wis. Adm. Code, to make it clear that electronic devices are a different type of material than scrap metal, appliances or other materials defined in this section, and to clarify what is and is not included in electronics processing. This change is necessary because many appliances, cars and other items would now also meet the definition of an electronic device. The rule specifically excludes electronic devices from the definition of “salvageable materials” in s. NR 500.03 (203), Wis. Adm. Code, which required the department to amend or add language in several parts of ch. NR 502, Wis. Adm. Code, to clarify requirements for electronic devices.

B. Storage of waste electronic devices at apartment buildings, commercial establishments,

business establishments and industries: The rule amends language in s. NR 502.05 (3) (a), Wis. Adm. Code, to ensure electronics and similar devices that may not need to be stored in containers are still eligible for this exemption from solid waste storage licensing.

- C. Transportation of electronic waste:** The rule adds and amends language in s. NR 502.06, Wis. Adm. Code, to exempt trucks carrying only electronic waste for recycling from the requirement to obtain a solid waste collection and transportation (C&T) license from the department, but to retain basic operational requirements to ensure the electronics remain recyclable and that haulers comply with the electronics disposal ban. It also creates an exemption from C&T licensing for parcel carriers transporting incidental amounts of solid waste for recycling, such as electronic devices, smoke detectors, or other items recycled through mail-back programs.
- D. Solid waste transfer stations that handle electronic waste:** The rule amends an exemption in s. NR 502.07, Wis. Adm. Code, to ensure electronics collection sites can meet the conditional license exemption as transfer stations in s. NR 502.07 (2), Wis. Adm. Code, when electronics are appropriately stored in cardboard Gaylords or on pallets and do not need to be moved off-site weekly. It also creates a new conditional exemption from solid waste transfer facility licensing for facilities such as retailer logistics centers, where loads of electronics collected from stores are consolidated.
- E. Solid waste processing license requirements for electronics processing facilities:** The rule adds language to s. NR 502.08, Wis. Adm. Code, to require electronics processing facilities to obtain a solid waste processing license from the department and meet applicable code requirements for obtaining and maintaining that license. The rule exempts very small-scale electronics processing activities from licensing, along with electronics repair, which pose a low risk to human health or the environment and for which obtaining department approval would be burdensome and inefficient for both the facility and for the department. An addition to s. NR 502.08 (6), Wis. Adm. Code, is meant to ensure that third-party haulers contracted by electronics processing facilities are informed of applicable requirements under s. NR 502.06 (2) (ag), Wis. Adm. Code.
- F. Clarification of solid waste fees and financial responsibility requirements:** The rule makes small changes in ch. NR 520, Wis. Adm. Code, to ensure electronics processing facilities are covered by this chapter in the same way that other solid waste processing facilities are, including being exempted from annual licensing fees, and to clarify what must be included in closure cost estimates for non-landfill solid waste facilities. This part of the rule addresses the most common bad actor problem, where a facility removes the most valuable components and leaves less valuable materials behind as waste.

Creation of ch. NR 530, Wis. Adm. Code, specific to the E-Cycle Wisconsin program

The new chapter only covers activities and entities regulated under s. 287.17, Wis. Stats. This includes both in-state and out-of-state brokers, collectors, manufacturers, recyclers and retailers.

Generally, the proposed ch. NR 530, Wis. Adm. Code, matches existing registration and report forms, guidance, and other current practices the department has developed in conjunction with E-Cycle Wisconsin stakeholders. These include:

- Clarification of which devices meet the definitions of “computer monitor,” “computer peripheral” and “consumer computer” under s. 287.17 (1), Wis. Stats.
- Requirements for information submitted with annual registration and report forms.
- Eligibility of electronic devices recovered from waste loads or illegal dumping to count toward manufacturers’ weight recycled.
- The use of brokers to facilitate transactions between recyclers and manufacturers.

- The reasons and process for suspension and revocation of program registrations.
- Options for electronics retailers to comply with the prohibition in s. 287.17 (2) (c), Wis. Stats., on selling unregistered brands of covered electronics.

Below are the requirements that are new or different under this rulemaking:

- A. Criteria for determining when materials are “recyclable”:** The existing s. 287.17 (1) (m), Wis. Stats., defines recycling as “preparing eligible electronic devices for use in manufacturing processes or for recovery of usable materials and delivering the materials for use.” It 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.

The statute does not provide criteria for the department, manufacturers or recyclers to determine whether a material is “recyclable.” As markets for materials like cathode ray tube glass and plastics have shifted and dwindled, it has sometimes been difficult for the department to provide guidance on whether the weight of certain material from eligible electronic devices sent for disposal would still be eligible for manufacturer credit because it is not “recyclable.” The proposed rule creates criteria to help the department make these determinations and provides clarity for the regulated community..

- B. Registered recyclers:** The proposed rule makes changes to operational and reporting requirements for registered recyclers, primarily to ensure owner financial responsibility (OFR) required under s. 287.17 (8) (c), Wis. Stats., adequately covers facility closure and cleanup costs.
1. On their annual registration, registered recyclers would need to list all facilities where they recycle or store eligible electronics (currently, they are only required to list facilities where they recycle eligible electronics) and maintain OFR for any storage facilities, in addition to the current requirement to maintain OFR for recycling facilities.
 2. In-state registered recyclers would be subject to the solid waste processing license requirement described in the previous section under (F), and would need to follow the OFR requirements in ch. NR 520, Wis. Adm. Code. For the most part, in-state recyclers’ existing OFR should already meet these requirements. They would be required to name the department as the beneficiary or obligee for their OFR (nearly all do so already).
 3. To ensure a level playing field with in-state recyclers, there would be more specific requirements for the OFR maintained by out-of-state registered recyclers, including naming an independent third party as the beneficiary or obligee, estimating costs based on an independent third party performing the work, and notifying the department of OFR changes or cancellation in a timely manner.
 4. The rule also adds a requirement for registered recyclers to use and keep records of bills of lading for shipments of electronic devices or components under E-Cycle Wisconsin for at least 3 years. The U.S. Department of Transportation already requires bills of lading for most shipments, but the rule specifies details that should be included in shipments of electronics under the program.
- C. Registered collectors:** The proposed rule requires registered collectors to keep independent records of the dates and volumes of loads of eligible electronics they ship under the E-Cycle Wisconsin program. The goal is to maintain the ability to cross-check and verify reports provided to collectors by receiving facilities.
- D. Authorized brokers:** Several entities have been operating as brokers of credit for recycled materials for manufacturers under E-Cycle Wisconsin since the program began. The proposed rule defines the term “authorized broker” as a person that provides services to registered

manufacturers and registered recyclers for the purpose of cooperation under s. 287.17 (2) (b), Wis. Stats., and that complies with the notification requirement at s. NR 530.10 (2), Wis. Adm. Code. The only substantive change from existing practices is a requirement that registered recyclers that purchase credit for recycled weight (often called “paper weight”) from other registered recyclers would be required to complete a broker form, as well as the registered recycler form.

- E. Electronics retailers:** The proposed rule provides more specifics for how retailers meet the customer education requirements in s. 287.17 (9), Wis. Stats. To meet the customer education requirement, all retailers would need to include information on receipts for covered electronics about the electronics disposal bans and how to recycle eligible electronics. This could include linking to the department’s website. In brick-and-mortar stores, this information would also need to be posted prominently in either the store’s electronics section or by registers.
- F. Clarifying definitions of covered electronic devices:** The proposed rule clarifies that components of video game systems, such as gaming consoles, are covered electronic devices if they meet the definition of “consumer computer” under s. 287.17 (1) (e), Wis. Stats. This would require manufacturers of these devices, the modern versions of which offer many of the same functional features as conventional computers, to register their brands, pay annual registration fees if applicable, and meet annual recycling targets based on the weight of these devices sold to Wisconsin households and covered schools.
- G. Addition of eligible electronic devices:** The proposed rule adds three categories of devices to the list of eligible electronic devices under s. 287.17 (1) (gs), Wis. Stats., based on the department’s determination under s. 287.17 (10) (i), Wis. Stats., that the disposal or burning of these devices in a solid waste facility may be harmful to human health or the environment, due primarily to the fire risk posed by lithium ion and other rechargeable batteries these devices typically contain.

The device categories are a telephone with a video display, a telephone accessory operated by a battery, and a component of a video game system or a portable hand-held video game device operated by a battery that does not meet the definition of a computer monitor or consumer computer. Telephones with video displays are already banned from landfills and incinerators under s. 287.07 (5), Wis. Stats., and the other two categories of devices are accessories to electronics that are or would be banned from landfills and incinerators. Adding these electronics as eligible electronic devices under E-Cycle Wisconsin will further facilitate and encourage their recycling and prevent them from causing fires during solid waste collection, transfer and disposal activities.

5. How does this proposal affect existing policy?

The proposed rule would make state regulation of collection, transportation and processing of electronic waste more consistent with how the department currently regulates these activities for other solid waste. The rule would not change the way most electronics collection sites and transporters are operating, but would set baseline standards to ensure they are handling electronic waste in a way that prevents pollution and protects human health. The rule would add additional requirements for electronics processing facilities to ensure proper management of electronic waste and reduce the likelihood that property owners or taxpayers will need to pay for cleanups of abandoned or mismanaged electronics waste.

For the most part, the proposed ch. NR 530, Wis. Adm. Code, matches existing registration and report forms, guidance, and other current practices. The rule seeks to codify some of the streamlined approaches that have been developed by the department and industry and establishes rules for the marketplace in recycling credits that has developed since the 2009 statute was enacted.

6. Has Board dealt with these issues before?

Yes. The Board approved the scope statement and conditionally authorized hearings for WA-11-19 at its December 2019 meeting.

7. Who will be impacted by the proposed rule? How?

The creation of ch. NR 530, Wis. Adm. Code, will affect entities covered by Wisconsin's electronics recycling program, created by s. 287.17, Wis. Stats., and referred to as E-Cycle Wisconsin. Affected types of entities include:

- Electronics collectors as defined in s. 287.17 (1) (mg), Wis. Stats.;
- Electronics manufacturers as defined in s. 287.17 (1) (i), Wis. Stats.;
- Electronics recyclers as defined in s. 287.17 (1) (mr), Wis. Stats.; and
- Electronics retailers as defined in s. 287.17 (1) (n), Wis. Stats.

Changes to chs. NR 500, 502 and 520, Wis. Adm. Code, will affect individuals or facilities that collect, store, transport, sort, dismantle, shred or otherwise process electronics and components derived from electronics. Some of these may also be E-Cycle Wisconsin participants.

8. Soliciting public input on economic impact synopsis

During the economic impact comment solicitation period, the department contacted all participants registered with E-Cycle Wisconsin, along with more than 8,000 stakeholders signed up for a department electronics recycling email list, as well as all local units of government that operated effective recycling programs.

9. Small Business Analysis

The department estimates that approximately 75% of Wisconsin electronics recycling facilities (15 to 22 businesses) affected by the rule would be small businesses. The department estimates these businesses would have total aggregate one-time costs of \$14,250 to \$22,500. They would not have annual fees.

The proposed rule includes exemptions from solid waste processing license requirements for facilities that process fewer than 25 electronic devices per year. The department will also waive annual solid waste processing license fees for all facilities.

Drafter: Sarah Murray

Electronics Recycling Rule Public Comments and Department Responses Natural Resources Board Order No. WA-11-19

July 21, 2021

This document presents a summary of public comments received on the proposed revisions to chs. NR 500, 502 and 520 and creation of ch. NR 530, Wis. Adm. Code, and the Department of Natural Resources' (the department's) responses.

OVERVIEW

In the statement of scope for this rule, the department proposed creating a new administrative code chapter implementing electronics recycling program requirements under the authority of s. 287.17, Wis. Stats., and amending chs. NR 500, 502 and 520, Wis. Adm. Code, as they relate to electronics collection, storage, transportation, transfer and recycling activities.

The primary goals of this effort are to:

- Ensure the E-Cycle Wisconsin program created by s. 287.17, Wis. Stats., continues to function well by codifying numerous streamlined procedures developed by the department working with industry, keeping the program up to date with developments in the electronics industry and preserving a level playing field among program participants.
- Protect human health and the environment by providing oversight of electronics recycling operations in Wisconsin that is more consistent with oversight of other waste and material processing, including requiring owner financial responsibility for closure and cleanup costs that currently fall mainly on property owners and taxpayers.

Stakeholder Process – Many elements in the rule originated from general program implementation discussions with E-Cycle Wisconsin program participants and other stakeholders over the years. In addition, the department held a public information meeting on draft rule concepts on December 9, 2020, and accepted comments on the proposed concepts through December 23, 2020. The department fielded several questions during the meeting, and received three formal comments that are addressed in this document. The department made several adjustments to the draft rule based on this feedback.

Economic Impact Analysis (EIA) – A 30-day public comment period on the Draft EIA occurred from March 17 to April 16, 2021. During this period, the department received comments and questions related to the proposed rule language from five organizations. None of the comments directly addressed the draft EIA. The department is responding to the rule language comments in this document.

Public Hearing and Comment – The public comment period for the draft rule occurred from May 19, 2021, to July 7, 2021. The department received nine written comments or clarifying questions during the public comment period. The public hearing on the draft rule was held June 28, 2021. Seven people (in addition to department staff) attended the hearing. Two attendees provided oral comments, and both subsequently submitted written comments as well. The department made several adjustments to the rule based on the comments received, including a change that reduced the rule's estimated annual implementation costs to stakeholders by more than \$100,000.

RULE CONCEPTS FEEDBACK

The department received three formal comments, two from electronics recyclers and one from an electronics retailer, in response to a rule concepts document it shared with stakeholders following its December 9, 2020, public feedback meeting. The comments included general support for the rule-making, along with specific concerns that the department addressed as follows:

Requiring electronics transporters to obtain a collection and transportation (C&T)

license: Both of the electronics recyclers expressed concern about the department's proposal to require those transporting electronic waste to obtain a solid waste C&T license from the department under s. NR 502.06, Wis. Adm. Code. Their concerns were based on the unique methods used for transporting e-waste compared with most other solid waste, including the use of parcel carriers for mail-back programs and the use of third-party carriers and/or rented trailers for transporting electronics, all of which would make obtaining the C&T license (which is tied to specific vehicles) potentially cumbersome and costly.

Department response: Based on these comments, in the proposed rule the department included changes to s. NR 502.06, Wis. Adm. Code, to create two new exemptions from C&T licensing requirements. The first [s. NR 502.06 (2) (ag), Wis. Adm. Code] exempts transporters of waste electronics from C&T licensing provided they meet basic operational requirements, such as transporting waste electronics to DNR-licensed, exempted or approved processing facilities and loading trucks in a way that prevents electronics from falling or spilling out of containers. The department also added a requirement [s. NR 502.08 (6) (p), Wis. Adm. Code] for electronics processing facilities to notify transporters they contract with about the operational requirements. The second [s. NR 502.06 (2) (L), Wis. Adm. Code] exempts vehicles owned by the U.S. Postal Service or other parcel carriers from licensing when they transport incidental amounts of waste materials as part of mail-back recycling programs.

Level playing field among electronics recyclers: One recycler expressed concerns about whether in-state and out-of-state registered E-Cycle Wisconsin recyclers would be held to the same standards, including financial responsibility and vetting of downstream vendors for components and materials from recycled electronics.

Department response: All registered E-Cycle Wisconsin recyclers are required to maintain proof of financial responsibility under s. 287.17 (8) (c), Wis. Stats. One of the department's goals in this rulemaking process is to clarify and strengthen this requirement, including ensuring that both in-state and out-of-state recyclers are meeting equivalent standards for their financial responsibility. All registered E-Cycle Wisconsin recyclers must keep detailed records of at least two steps "downstream" for recycled materials under s. 287.17 (8) (c) (4) and (5), Wis. Stats., and must provide this information to the department upon request. The department will continue using its authority under the statute to provide oversight of recyclers' downstream markets.

Customer education requirements for electronics retailers: An electronics retailer expressed a preference for providing customers with a receipt containing a short website URL for more information about electronics recycling, and concern about the potential of needing to post department-specified customer education materials in stores.

Department response: The department plans to continue maintaining information at dnr.wi.gov, which can be found by searching "ecycle," and is mindful of others using this

information for their outreach. The department's intent is not to require stores to post specific, department-branded outreach material, but to allow stores to design their own outreach material, if desired, that contains the two pieces of information required by the statute—that many electronics are banned from the trash, and where/how customers can recycle electronics. Retailers would also be welcome to use department-created materials, or modified versions with their own branding. Paper receipts are often refused by customers, and it is important that retailers fulfill their information obligations under the electronics recycling law.

ECONOMIC IMPACT ANALYSIS

The department received no comments related to the economic impact analysis (EIA) of the proposed electronics recycling rule. The following summarizes comments and questions about the proposed rule language received during the draft EIA comment period and the department's responses.

Collection site container requirements: During the EIA comment period, as well as the earlier rule concepts comment period, a few collectors and recyclers expressed concern about the proposed wording in s. NR 502.07, Wis. Adm. Code, regarding container requirements for waste at transfer stations that act as public drop-off sites. Comments and questions included:

- how the term “leak-proof” would be applied to containers/packaging for electronics such as open-topped, cardboard Gaylord boxes and pallets;
- whether these common types of packaging for electronic waste would be allowed;
- concern about potential damage that weather might cause to electronics stored outside before being sent to a recycler.

Department response: The department's intent with the rule is to continue to allow packaging such as Gaylords and shrink-wrapped pallets for electronic waste, but to put in place minimum standards consistent with other solid waste regulations to prevent electronics (particularly those with hazardous components) from breaking, to maintain the recyclability of electronics, and to reduce the potential for environmental harm from improperly stored electronics. At the same time, the department recognizes the many different circumstances under which electronics are collected for recycling (ranging from small, rural municipal drop-off sites to retailers to one-day events to large, urban sites), and that handling requirements are different for electronics than for many other types of solid waste.

Based on this and the feedback that the earlier language was not clear enough, the department is proposing a separate, new paragraph [s. NR 502.07 (2) (am), Wis. Adm. Code] to specifically address the allowed containers/packaging and minimum handling standards specific to e-waste.

Including smartphones and video game systems under the definition of “consumer computer”: The Consumer Technology Association, a group representing electronics manufacturers submitted comments objecting to the proposed inclusion of smartphones and video game systems under the definition of “consumer computer” under s. 287.17 (1) (e), Wis. Stats. The group argued that these devices are used primarily as phones and game consoles, that used smartphones and video game systems are in high demand because of their reuse value, and that there is an extensive network in place for collection of these devices for reuse and recycling. The group stated that the proposed rule “would require manufacturers of smart

phones and game consoles to incur additional costs with no concurrent recycling or environmental benefit.”

Department response: The department included device category clarifications in the rule for the public hearing based on its initial interpretation that smartphones and some video game systems meet the statutory definition of a “consumer computer,” and thus are required to be covered by this definition. The department asked the commenter for additional details about the economic impacts of this provision, but none was provided during the public comment period on the draft rule language.

Items not addressed in the rule: The department received a comment that the proposed rule language will add regulation, costs and record keeping to small market recyclers while not increasing manufacturer recycling payments, changing the manufacturer target formula, or expanding who is eligible to recycle electronics through E-Cycle Wisconsin.

Department response: The department does not have the authority to change by rule the rates manufacturers pay for recycling, the manufacturer recycling target formula, or the groups (currently households and K-12 schools) that are eligible to recycle electronics through E-Cycle Wisconsin. These would need to be statutory changes made by the Legislature. The department will continue to recommend changes to the Legislature that could improve program economics, such as the recent expansion, under 2021 Wisconsin Act 79, or eligibility to all K-12 schools, instead of K-12 public and Parental Choice Program schools.

Effect on reuse, repair or donation of used electronics: The department received a question about whether the proposed changes would negatively affect organizations involved in repair, reuse, donation and/or resale of electronics.

Department response: The department’s intent is to exempt reuse, repair and refurbishment of electronics from solid waste licensing requirements. In the proposed definition of “Electronics recycling” under s. NR 500.03 (71m), Wis. Adm. Code, electronics recycling does not include “Reuse, repair, or any other process through which an electronic device is returned for use in its original form.” Devices that are being reused/refurbished, sold, donated, etc., are not a “waste” and so not covered by solid waste regulations.

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE (21-041)

Comments received from the Wisconsin Legislative Council Rules Clearinghouse (LCRC) were related to form, style and placement in administrative code; adequacy of references to related statutes, rules and forms; and clarity, grammar, punctuation and use of plain language. The department made all requested changes except as follows:

Comment 2d. In SECTION 1 of the proposed rule, in s. NR 500.03 (71m) (a) (intro.), should “means processing” be changed to “means preparing” in order to achieve consistency with the definition of “recycling” in s. 287.17 (1) (m), Stats.?

Department Response: The department’s intent is for this definition to be distinct from the definition in s. 287.17 (1) (m), Wis. Stats., because of the need to be consistent with how other terms and activities are defined and applied in ch. NR 502, Wis. Adm. Code. To reduce confusion, the department changed the proposed definitions from “electronics

recycling” to “electronics processing” and “electronics recycling facility” to “electronics processing facility.”

Comment 2e(1): The definition of “collection” in sub. (2) could be removed because that term is already incorporated by the reference to s. 287.17, Stats., in s. NR 530.03 (intro.).

Department Response: There is a different and somewhat conflicting definition of “collection” in s. NR 500.03 (38), Wis. Adm. Code, since the chapter applies broadly to several waste types so we are including this definition to be clear it is the one in s. 287.17, Wis. Stats., that applies.

Comment 2e(2): The department should consider whether it is necessary to create the definition “covered school” in sub. (3).

Department Response: 2021 Wisconsin Act 79 changed the definition in s. 287.17, Stats., from “school” to “covered school,” so the department has removed the definition from the rule but retained the term “covered school.”

Comment 2e(4): Will the term “smart home device”, as used in s. NR 530.04 (1) (b), be understood by relevant stakeholders without a definition?

Department Response: This appears to be a common term, used as a device category by many retailers, and the department did not receive any comments from the public asking for clarification of this term, so the department did not add a definition.

Comment 5c: In s. NR 530.09 (2) (a) 4., what is “long-term” storage?

Department Response: The phrase “long-term” has been removed.

SUMMARY OF PUBLIC COMMENTS AND DNR RESPONSE

The department received nine written comments or clarifying questions on the draft rule between June 23 and July 7, 2021, including two comments that supplemented verbal comments during the June 28, 2021, public hearing. Comments or questions were received from electronics collectors including Brown County, the city of Madison, the city of Milwaukee, Oconto County and Portage County; electronics recycler Universal Recycling Technologies; the Consumer Technology Association that represents its member companies, including many electronics manufacturers; HP Inc.; and Waste Management. Representatives from the Consumer Technology Association and Waste Management provided verbal comments during the public hearing. All commenters expressed support for the majority of provisions in the proposed rule.

Oconto County expressed support, in particular, for the improved regulation and oversight of electronics recycling businesses, based on the county’s experience with expensive cleanups for electronics sites that had not been properly managed. Portage County and the electronics recycler Universal Recycling Technologies also expressed support for these provisions, including owner financial responsibility requirements for processors.

The city of Milwaukee and Portage County expressed support in particular for the rule's enhanced customer education requirements for electronics retailers, as a means of better educating the public about proper management of unwanted electronics.

The department reviewed and addressed all of the specific questions or requests for changes in the comments. The following summarizes these items and the DNR's response.

Device categories meeting "consumer computer" definition

The Consumer Technology Association (CTA) testified and submitted comments opposing the inclusion of smartphones and video game systems in the statutory definition of "consumer computer."

s. 287.17 (1) (e) "Consumer computer" means a high-speed data processing device for performing logical, arithmetic, or storage functions that is marketed by the manufacturer for use by households or schools, except that "consumer computer" does not include an automated typewriter or typesetter, a portable hand-held calculator or device, or other similar device.

CTA argued that smartphones are excluded because they are a "portable hand-held calculator or device." CTA's definitional argument for not including video game systems was that their purpose is to allow consumers to play games, and not to "perform logical, arithmetic or storage functions." CTA also argued that this consumer computer definition could be broadly applied to many other types of devices, questioning why video game systems were singled out.

Other comments on this topic received included the following:

- The manufacturer HP Inc. submitted brief comments in support of the proposed "consumer computer" device categories.
- The City of Milwaukee submitted comments in favor of expanding covered electronic devices in order to cover more recycling costs and assist municipalities with collection of devices "that contain flammable, difficult-to-remove lithium ion batteries."
- Portage County submitted comments in favor of including smartphones and video game systems as covered electronic devices.

Department Response: Department program staff obtained a legal opinion from the department's attorney responsible for solid waste and recycling concerning the applicability of the "consumer computer" definition to smartphones and video game systems.

The legal opinion advised that smartphones be excluded from the definition of "consumer computer" because they meet the exclusion of "a portable hand-held calculator or device," though a smartphone could meet the definition of "consumer video display device" under s. 287.17 (1) (em), Wis. Stats., if it had a screen that measures at least 7 inches in the longest diagonal direction.

The legal opinion further advised that the department should separately evaluate individual components of video game systems, and that some components, such as game consoles like Xbox and PlayStation, may meet the statutory definition of a consumer computer. Portable, hand-held video game devices with a screen of less than 7 inches in the longest diagonal direction would not be covered electronic devices, for the same definitional reasons as smartphones.

Based on this opinion, the department removed from the rule “smartphone” in the list of device categories that meet the definition of a “consumer computer.” The department updated the rule’s wording of the video game system device category to “A component of a video game system that meets the definition under s. 287.17 (1) (e), Stats., of a consumer computer” to clarify which video game-related devices would meet the definition of a consumer computer and thus be a covered electronic device.

The department included components of video game systems as a device category under the “consumer computer” definition because many video game consoles perform functions, such as browsing websites, that are similar to those of desktop, laptop or tablet computers—some of which are also specifically marketed for playing video games. In addition, five of the 25 other states that have electronics recycling laws currently include game consoles as covered devices, either as a separate category or under their definition of a computer. The department will continue to evaluate all electronic devices to determine the extent to which they meet the definition of a covered electronic device under s. 287.17 (1) (f), Wis. Stats.

Addition of eligible electronic devices

In its testimony, CTA indicated it would support including smartphones as eligible electronic devices under s. 287.17 (1) (gs), Wis. Stats., which would mean they could be recycled to count toward manufacturer recycling targets. However, if they are not designated as a covered device, smartphone manufacturers would not be required to register with the department or meet recycling targets based on their sales.

Department Response: Section 287.17 (10) (i), Wis. Stats., authorizes the department to promulgate a rule specifying that a kind of electronic device is either an eligible electronic device, is subject to the disposal ban in s. 287.07 (5) (a), Wis. Stats., or both, if the department determines that the disposal or burning of this kind of electronic device in a solid waste facility may be harmful to human health or the environment. Section 287.07 (5) (a) 9., Wis. Stats., currently bans “A telephone with a video display” from landfill or incinerator disposal.

After reviewing the issue, the department determined that telephones with video displays, which typically contain powerful lithium ion batteries, may be harmful to human health or the environment if disposed of in a solid waste facility, due to the fire risk from lithium ion batteries damaged by equipment in solid waste collection trucks, at transfer or processing facilities, incinerators and landfills. In recent years, industry experts have documented hundreds of fires in solid waste processing and disposal facilities, many of which have been traced back to lithium ion batteries in electronics.

To reduce this fire risk by encouraging proper recycling of more electronic devices, and after assessing the comments on the consumer computer definition, the department added the following to the list of eligible electronic devices in the rule:

- telephones with a video display;
- telephone accessories operated by a battery; and
- video game system components operated by a battery that do not otherwise meet the definition of a covered electronic device.

Requirement for collectors to maintain independent records of loads sent to recyclers

Brown County and the city of Madison raised initial concerns about the proposed requirement in s. NR 530.08 (3), Wis. Adm. Code, for registered E-Cycle Wisconsin collectors to “maintain records of the dates it sent eligible electronic devices to another registered collector or a

registered recycler, along with the bill of lading, scale receipt, or approximate weight or size of the load. These records shall be kept independently from receipts or other records received from the collector or recycler that received the eligible electronic devices.” The city of Madison expressed concern about collectors’ ability to do this if they don’t have a scale, and Brown County asked about potential difficulties this could cause for reconciling collector and recycler records at the end of the program year.

Department Response: The department’s intention is to ensure collectors are maintaining records that can be used to verify records kept/provided by receiving facilities (usually the recycler). There would be an additional benefit for many collectors of being able to better verify the accuracy of charges they are receiving from their recycler. No changes were made in the rule based on these comments.

The impetus for this requirement came from a significant enforcement case involving a recycler previously registered under E-Cycle Wisconsin, which the department believed was providing inaccurate records. When the department reached out to collectors to verify the recycler’s records, many couldn’t even verify the dates loads were picked up by the recycler or whether the weights the recycler was reporting were reasonable. The recycler abandoned more than 9 million pounds of hazardous waste in Wisconsin and Tennessee with an estimated cleanup cost of \$2 million in Wisconsin and \$1.1 million in Tennessee. Many of the materials in Tennessee came from Wisconsin. To date, this case has resulted in multiple criminal convictions, with additional cases pending.

The departments’ s expectation would be for registered collectors to track the dates they sent loads of electronics off-site, as well as some information about what was included in that load. If the collector is using a bill of lading or has its own scale, those could be used as the records. But a collector could also just note approximately how much and the types of electronics. For example, 10 pallets of cathode ray tube TVs, 5 Gaylords of mixed electronics, 1 Gaylord of computers, 1 pallet of monitors. The department will provide a worksheet collectors could use for doing these estimations.

Since most collectors don’t have scales, in most cases the department does not expect there would be much additional reconciling needed, at least at the end of the program year, with the understanding that most collectors would be looking at their records as they receive each invoice/statement from their recycler.

The department expects to do further outreach and provide guidance to make sure collectors understand this requirement and the flexibility they have to meet it.

Documenting length of time electronics remain at collection/transfer sites

Brown County expressed support for changes the department had made to proposed rule language regarding how electronics are managed at solid waste transfer facilities (e.g., collection sites), but had the following question:

“Containers, pallets or other packaging material... shall be removed or emptied at least once per year.” Will there be any required documentation proving this is happening – similar to universal wastes?

Department Response: The department understands this comment and in response made clarifying changes to the rule language.

Given that electronics may be stored in different ways, depending on their size and shape, the department wants to maintain flexibility for sites to track these dates in the manner that works best for their operations. The department updated the proposed rule language to the following, and will use guidance to outline the options transfer facilities have for demonstrating compliance with this provision. The proposed rule text now states:

S. NR 507.02 (2) (cm) A facility shall demonstrate that containers, pallets or other packaging material holding only electronic devices, along with any electronic devices stored outside of a container, are removed or emptied at least once per year.

Solid waste collection and transportation (C&T) licensing requirements for electronic waste

Universal Recycling Technologies (URT) expressed concern about transporters of electronic waste being required to obtain solid waste collection and transportation licenses from the department.

Department Response: The department clarified with URT that the proposed rule provides exemptions from C&T licensing for transporters of electronic waste, as long as they meet the basic operational requirements referenced in the exemptions.

Waste Management comments on ch. NR 502 provisions

While expressing general support for the rule provisions and for changes the department had previously made to the proposed rule, Waste Management submitted several comments and questions on specific language in ch. NR 502, Wis. Adm. Code. Below is a summary of these comments/questions and the department's responses.

1. Section 6/NR 502.06 (2) (ag) exempts services transporting "only" waste electronics. Are we correct in understanding "only" to mean the service is not transporting other solid wastes? If that is the case, a note to that effect would be helpful. Otherwise, the inference is that the service transports no other materials.

Department Response: The intent here is that, to qualify for this particular licensing exemption, a load would need to include only waste electronics. That is, a load that contains other solid waste, plus a few containers or pallets of electronics, would not qualify for this exemption. This section would not apply to loads/portions of loads that are not solid waste (e.g., if a retailer's truck included products being delivered for sale, in addition to waste electronics being backhauled from a store collection point). The department added a note clarifying that de minimis amounts of packaging or contamination are allowed, and will provide guidance to help operators understand what is required to qualify for this licensing exemption.

2. Section 6/It's not clear how or why the general requirements of NR 502.04 would apply to a common carrier transporting waste electronics.

Department Response: Any solid waste facility regulated under ch. NR 502, Wis. Adm. Code, including collection and transportation services, must meet the applicable requirements of s. NR 502.04, Wis. Adm. Code, unless specifically exempted. The department will provide guidance to help clarify which requirements in ch. NR 502, Wis. Adm. Code, apply to collection and transportation of waste electronics.

3. Section 7/NR 502.06 (2)(am) – This section exempts only transporters of, “...non-hazardous materials derived from electronic devices...” This is confusing, since it is not clear whether or how the Department is requiring licensing for transportation of any fraction of electronic devices. Other than batteries, device materials are not DOT Hazardous materials given the quantity and concentration of the materials in question. A material cannot be regulated as a hazardous waste unless it is first a solid waste (40 CFR 261.4(a)). When recycling, how a material is regulated under RCRA depends on what type of material it is and how it is being recycled. To determine which regulations apply to e-waste, the generator has to consider both of those questions. To encourage recycling and still protect human health and the environment, EPA tried to make the level of regulation reflect the actual hazard of the recycling activity. Like the federal regulations, Wisconsin exempts certain wastes recycled under NR 661.02 and 661.04, and Universal Waste under 661.09.

Is the intent to depart from these policies by requiring licensing of transporters of electronic devices/components under certain conditions?

Department Response: The intent of the “non-hazardous” language is to provide clarification that hazardous waste requirements may still apply to some materials derived from electronics, such as cathode ray tubes, batteries and lamps. This language does not change any of the hazardous waste requirements in chs. NR 600-699, Wis. Adm. Code. This provision clarifies that non-hazardous materials derived from electronic devices, which might include plastics, steel, aluminum, copper or other metals, which are regulated under chs. NR 500-599, Wis. Adm. Code, (solid waste regulations), qualify for the same exemption from solid waste collection and transportation licensing as cans, bottles, paper, cardboard, and other materials banned from disposal under s. 287.07 (3) and (4), Wis. Stats.

4. Section 16/NR 502.08(6)(p) – We recommend omitting this proposed requirement. It is not at all practical for a facility operator to notify any carrier delivering devices to the facility of the need to comply with various state regulations. The provision assumes that the facility is contracting with or arranging transport of devices to the facility, but in many cases the facility has no nexus at all to the carrier. Delivery is arranged by a broker or other 3rd party. The facility often does not even need to know who the carrier will be until the truck is backing up to the dock. Moreover, brokers and those arranging transportation don’t typically contract with, and rely upon, a single carrier. They engage multiple carriers in a continuously shifting dynamic driven by logistics, availability and price.

Department Response: The department believes that electronics processing facilities that are contracting with third-party carriers to transport waste electronics to their processing facilities should ensure that the carriers are aware of the requirements under s. NR 502.06, Wis. Adm. Code, because these carriers may not otherwise be familiar with solid waste requirements.

To address the core concern in this comment, the department updated the language in the proposed rule so that facilities are only required to provide this notification to collection and transportation services they contract with, so that the facilities have a clear mechanism (a written contract) for providing the notification.

5. Section 10/ NR 502.07(2)(am) – We greatly appreciate the modifications the Department made to the originally proposed container language. We ask that you consider further modifying this provision to make it clear that a container intended to hold only electronic devices is covered under 502.07(2)(am) even if it also contains de minimis amounts of other material, such as plastic wrapping, pallet banding, packaging or litter or other garbage inappropriately placed in the container.

Department Response: The department added a note clarifying that de minimis amounts of packaging or contamination are allowed, and will also provide guidance to this effect.

6. Section 20/NR 530.05(2) – Provision seems to say that if a registered recycler or collector receives certain material....it can be sent to a registered recycler for recycling on behalf of a registered manufacturer. May be clearer to state: ~~If a registered collector or registered recycler receives~~ Eligible electronic devices recovered from waste loads or illegal dumping that can reasonably be assumed to have come from households or schools in this state, the eligible electronic devices may be accepted by sent to a registered recycler for recycling on behalf of a registered manufacturer.

Department Response: The department removed the first reference to “recycler” to avoid confusion, but kept the reference to collectors, because all material must go through registered collectors to be eligible.

7. Section 20/NR 530.08 – Information originally submitted may change throughout the licensing period as events are added, prices change, event times are determined, etc. Please indicate that a collector is required to submit information known and available at the time of registration, but not obligated to continually update that information in agency records.

Department Response: The department does expect collectors to continually update this information throughout the year, because it keeps the department’s public list (which hundreds of thousands of people visit annually) current. These types of updates may include a phone number change, a collection site closing, or a site or one-day event being added during the course of the program year.

The department added a statement in s. NR 530.08 (1) (c), Wis. Stats, that collectors need to notify the department of changes to some of their registration information in a timely manner.

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For annual costs, the department additionally estimates that in-state electronics recycling facilities combined would annually spend an estimated \$7,500 (\$6,000 to \$9,000) above current costs, spread among 20-30 facilities, to maintain owner financial responsibility. This would typically be paid to banks or other financial institutions to maintain a letter of credit or surety bond, and would help prevent taxpayers and landlords from shouldering clean-up costs if a recycler went out of business. The total estimate for annual costs to manufacturers and recyclers is \$285,385.

10. Would Implementation and Compliance Costs Businesses, Local Governmental Units and Individuals Be \$10 Million or more Over Any 2-year Period, per s. 227.137(3)(b)(2)?

☐ Yes ☒ No

11. Policy Problem Addressed by the Rule

Wisconsin's electronics recycling law, enacted in 2009, established a statewide program to collect and recycle certain electronics. Under this product stewardship-based law, manufacturers of TVs, computers, monitors and desktop printers must register with the department the brands they sell to Wisconsin households and schools. Those manufacturers also must recycle a target weight of electronics each year based on their sales. Manufacturers contract with state-registered recyclers and collectors to meet their targets. This manufacturer-funded recycling program is called E-Cycle Wisconsin. The law also banned landfill and incinerator disposal of many electronics.

The statute (s. 287.17, Stats.) establishing this program was intended to be detailed enough for the department to complete initial implementation without rulemaking (it prohibited the department from promulgating rules during the first two years of the program). The department has worked extensively with program participants over the years to develop and improve streamlined, online registration and report forms. These allow the department to verify the accuracy of information collectors, recyclers and manufacturers report, and also provide data to update a public list of electronics recycling options in real time, which the department identified as a high priority based on statewide surveys of Wisconsin households. In addition, the department has worked with stakeholders to put in place a flexible and efficient marketplace for the buying and selling of credit for recycled eligible electronic devices, making it easier for manufacturers to meet their recycling targets and for recyclers to recover costs. The proposed new ch. NR 530 codifies many of these improved and streamlined registration and reporting practices.

The 2009 law did not include requirements for electronics collection and recycling activities outside of E-Cycle Wisconsin. These activities are regulated by solid and hazardous waste requirements in chs. 289 and 291, Stats., and the NR 500 and 600 series of the Wisconsin Administrative Code. Prior to the electronics recycling law's enactment, and anticipating increasing volumes of electronic waste, the department relaxed requirements for electronics recycling to encourage development of e-cycling infrastructure. The department exempted electronics recyclers from solid waste processing license requirements under s. NR 502.08 (2) (f), Wis. Adm. Code, as "Facilities for the processing of scrap iron, steel or nonferrous metal using large machines to produce a principal product of scrap metal for scrap or use for remelting purposes." Transporters were also exempted from solid waste transporting requirements under s. NR 502.06 (2) (a), Wis. Adm. Code, as "Services for the collection and transportation of only gravel pit spoils, quarry materials, earth materials or salvageable materials other than those listed in s. 287.07 (3) or (4), Stats."

Since the decision, there have been several significant changes in the electronics recycling landscape that have led the department to re-examine this interpretation and seek to restore requirements for electronics collection, transportation and recycling activities with this rulemaking. These include:

- Significant growth in Wisconsin's electronics recycling infrastructure, due largely to 2009 Wisconsin Act 50, including the rapid growth among a handful of high-tech recycling facilities in the state.
 - An increase in enforcement cases resulting from irresponsible recyclers or "scrappers" removing high value metals from electronics while leaving hazardous materials behind. Since 2015, the department estimates these cases have
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led to more than \$2 million in completed and needed cleanups for which there are cost estimates but the cleanups have yet to occur. The majority of these costs are covered either by taxpayers or by landlords who own the properties on which the material has been mismanaged.

- A large change in the market for glass from cathode ray tubes (CRTs), which has made recycling older TVs and monitors much more expensive and led to stockpiles of CRTs and lead-containing CRT glass.
- Greater public awareness of the need to recycle electronics, and more demand for legitimate recyclers providing these services.
- The evolution of electronics, resulting in a lower percentage of electronic components that are metal (more valuable as commodities) with a commensurate increase in plastic components with a lower commodity value.

Many elements in the rule come directly from discussions with E-Cycle Wisconsin program participants and other stakeholders over the years. At the most recent E-Cycle Wisconsin stakeholder meeting in May 2018, participants were positive about the electronics recycling law, but noted several areas of concern, including a need for more actions to deter bad actors; the lack of affordable, convenient recycling for some state residents; a lack of consumer awareness about the need to responsibly recycle electronics; and economic and safety issues the changing electronic waste stream has brought to collectors and recyclers.

Elements of the proposed rule that address these stakeholder concerns, along with the problems the department has seen with electronic waste mismanagement, include the following changes to E-Cycle Wisconsin:

- Strengthening owner financial responsibility requirements for recyclers registered with E-Cycle Wisconsin, including ensuring a more level playing field between in-state and out-of-state recyclers by making requirements for out-of-state recyclers commensurate with requirements for in-state recyclers.
- Ensuring consistency and a level playing field among registered recyclers by establishing criteria for when a material derived from electronics is considered not “recyclable” and thus can be sent for disposal while still remaining eligible to count toward manufacturer recycling targets.
- Codifying department procedures for suspension or revocation of registered collectors, recyclers and manufacturers, to ensure the department remains consistent and transparent with these actions.
- Clarifying which types of electronics meet definitions in s. 287.17 (1), Stats., so that all manufacturers of covered electronic devices are contributing to the funding of recycling electronics from Wisconsin households and schools. This includes clarifying that some components of video game systems meet the definition of “consumer computer” in s. 287.17 (1) (e), Stats. These clarifications should ensure manufacturers cover a fair share of electronics recycling costs, potentially reducing fees Wisconsin residents are currently paying to recycle their electronics.
- Codifying requirements for information included in E-Cycle Wisconsin registrations that allows the department to continue maintaining a user-friendly website where Wisconsin residents can find convenient electronics recycling options.
- Providing more specificity about electronics retailers’ customer education requirements under s. 287.17 (9), Stats. Stakeholders have identified retailers where consumers are purchasing new electronics as a significant opportunity to improve awareness of the electronics disposal bans and electronics recycling opportunities.

Another element of the proposed rule addresses stakeholder concerns regarding anyone who chooses to recycle electronics, whether registered with E-Cycle Wisconsin or not:

- Requiring all in-state facilities that recycle electronics to obtain a solid waste processing license from the department, and ensuring other facilities managing electronic waste (including storage and transfer facilities and transporters) meet basic operational and locational standards. This includes requiring that all in-state electronics recycling facilities have owner financial responsibility in place.

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Regulating the management of electronic waste under chs. NR 500-520, Wis. Adm. Code, will also increase protection of the environment and human health by reducing the potential for mismanagement of discarded electronics.

Specifically, these changes will:

- Allow the department to provide direct, concrete compliance assistance before sites become large problems.
- Deter small-scale operators from taking on processing they cannot do responsibly.
- Give electronics generators, such as businesses, a clear signal as to which recyclers they should use, cutting off supply to irresponsible scrappers and reducing liability for the generators.
- Provide money for future electronic waste cleanups through a requirement that all in-state electronics recyclers maintain owner financial responsibility.

12. Summary of the Businesses, Business Sectors, Associations Representing Business, Local Governmental Units, and Individuals that may be Affected by the Proposed Rule that were Contacted for Comments.

The creation of ch. NR 530, Wis. Adm. Code, will affect entities covered by Wisconsin's electronics recycling program, created by s. 287.17, Stats., and referred to as E-Cycle Wisconsin. Affected types of entities include:

- Electronics collectors as defined in s. 287.17 (1) (mg), Stats.;
- Electronics manufacturers as defined in s. 287.17 (1) (i), Stats.;
- Electronics recyclers as defined in s. 287.17 (1) (mr), Stats.; and
- Electronics retailers as defined in s. 287.17 (1) (n), Stats.

Changes to chs. NR 500, 502 and 520, Wis. Adm. Code, will affect individuals or facilities that collect, store, transport, sort, dismantle, shred or otherwise process electronics and components derived from electronics. Some of these may also be E-Cycle Wisconsin participants.

During the solicitation period, the department contacted all participants registered with E-Cycle Wisconsin, along with more than 8,000 stakeholders signed up for a department electronics recycling email list, as well as all local units of government that operated effective recycling programs.

13. Identify the Local Governmental Units that Participated in the Development of this EIA.

Local government units were contacted for comments during the solicitation period. No local governmental units provided input about the rule's economic impact during the comment period.

14. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

The department anticipates the following would have additional one-time or new annual costs as a result of the proposed rule.

- Manufacturers of some video game systems would now be required to register with the department and meet the requirements of s. 287.17, Stats., (annual registration fee and recycling costs). All manufacturers the department expects will be affected are located out-of-state. Payments made directly to recyclers would be their largest costs.
- Out-of-state electronics recyclers registered with E-Cycle Wisconsin (one-time costs to update owner financial responsibility).
- In-state electronics recycling facilities, including those currently registered as recyclers or collectors under E-Cycle Wisconsin, and those not participating in E-Cycle Wisconsin (one-time costs to obtain a solid waste processing license from the department, and annual costs to maintain owner financial responsibility).

These estimated costs are outlined in more detail below. The department does not anticipate significant additional costs

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for electronics retailers or collectors that do not dismantle electronics.

New annual costs: out-of-state manufacturers of video game systems

The proposed ch. NR 530 would clarify the types of devices that meet the definition of a covered electronic device. The only significant change would be the inclusion of some components of video game systems (e.g., video game consoles), which the department believes currently meet the definition of a consumer computer under s. 287.17 (1) (e), Stats. Because the features of video game systems have evolved since s. 287.17, Stats., was created, these devices were not included in the department's initial interpretations of the law but appear appropriate now given that these devices are being used for many of the same purposes as devices branded as "computers."

In response to public comments it received and further legal review, the department removed smartphones from the list of device categories included in the "consumer computer" definition, significantly reducing the department's original economic impact estimates of manufacturer registration fees and recycling cost increases under the proposed rule.

Section 287.17 (2), Stats., requires manufacturers of covered electronic devices to register with the department and meet certain requirements. The department estimates that approximately four additional manufacturers would need to register brands of covered devices, because they sell video game systems and are not currently registered with the department for other covered electronic devices. Depending on the number of units sold to Wisconsin households and schools by these manufacturers (see Table 1), the total annual registration fees the newly added manufacturers would pay to the department could range from \$0 to \$20,000. The department estimates the most likely additional (total for all new manufacturers participating in the program) fee amount paid annually to the department would be \$7,500. This assumes 1 manufacturer in the \$0 fee category, 2 at \$1,250 and 1 at \$5,000.

Table 1: Manufacturer registration fee levels

Units of covered devices sold to WI households and schools during previous program year	Annual registration fee	Potential number of manufactures affected
<25	\$0	1
25 to 249	\$1,250	2
250 or more	\$5,000	1

These manufacturers, along with manufacturers already registered for other covered electronic devices that also make video game systems, would need to meet annual recycling targets based on their sales of covered video game systems to Wisconsin households and schools. Each manufacturer has a recycling target equal to 80% of the weight of covered devices sold in the state during a given 12-month period. To meet these targets, manufacturers contract with registered recyclers at a per-pound price to fund the recycling of eligible electronic devices. All recycling costs manufacturers pay go directly to funding the recycling of electronics collected under E-Cycle Wisconsin, reducing the costs paid by Wisconsin consumers or taxpayers.

Based on market research, the department has identified 12 brands of video game systems that would likely have recycling targets, including several manufacturers already registered with E-Cycle Wisconsin.

Because sales data are proprietary, the department does not have access to current, detailed information on the weight of video game systems sold in Wisconsin. Using 2017 data provided by the Electronics Recycling Coordination Clearinghouse (ERCC), the department estimates that approximately 2.3 million pounds of video game systems were sold in Wisconsin that year. Based on conversations with stakeholders, the department estimates an average per-pound recycling payment from manufacturers to recyclers of approximately 15 cents per pound. This would translate to video

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game system manufacturers paying recyclers approximately \$270,000 annually (see Table 2).

Table 2: Estimated additional annual manufacturer recycling costs

Device type	U.S. units sold	U.S. weight sold (lbs.)	WI weight sold (lbs.)*	WI recycling target (lbs.)	Estimated recycling cost **	# of manufacturers
Video game systems	17,400,000	127,300,000	2,253,210	1,802,568	\$270,385	12

* Assumes Wisconsin's share of the U.S. population as 1.77%

** Per pound recycling cost estimated at \$0.15

The figure for video game systems may be an overestimate, because several manufacturers already register gaming laptops and tablets, which may also be counted in the sales data provided by the ERCC. It is also possible some video game systems included in the sales data would not meet Wisconsin's definition of a "consumer computer" and thus would not be covered.

One-time costs: out-of-state registered E-Cycle Wisconsin recyclers

Much of the proposed rule creating ch. NR 530, Wis. Adm. Code, would codify current practices under the E-Cycle Wisconsin program, and so would not result in additional costs for program participants. The department will conduct outreach to affected facilities through workshops, webinars and/or one-on-one technical assistance.

The most significant change to requirements for registered E-Cycle Wisconsin recyclers concerns owner financial responsibility, which is most often provided as a letter of credit or a surety bond. Section 287.17 (8) (c), Stats., already requires registered recyclers to have owner financial responsibility in place. The department believes the seven in-state registered recyclers are already in compliance with the additional requirements contained in the rule. The department believes that three of the current out-of-state registered recyclers would need to make one-time adjustments to their owner financial responsibility, such as naming an independent third party as beneficiary, with an approximate total cost of \$5,000, paid to banks or other institutions that provide the letter of credit, surety bond or other instrument used for owner financial responsibility.

One-time costs: in-state electronics recycling facilities

The proposed rule requires a solid waste processing plan of operation for electronics dismantling and processing activities. This would entail a one-time cost for some facilities. These facilities would also be required to obtain an annual license; however, the department would waive annual licensing fees, as it currently does for other solid waste processing facilities with a primary purpose of recycling. Some of these costs could be offset by attracting customers that are seeking to work with department-licensed facilities to ensure their electronics will be legitimately recycled.

There are three categories of facilities that would be required to obtain a license, with differing costs for each. These are summarized below and in Table 2 and Table 3.

- Seven in-state recyclers registered with E-Cycle Wisconsin would see minimal additional costs, as they would likely already meet solid waste processing and owner financial responsibility requirements. Some facility staff time (estimated at 10 hours per facility) would be required for the approval and licensing process, with an estimated cost of \$300 per facility.
- In-state facilities registered as collectors, but not recyclers, under E-Cycle Wisconsin that meet the definition of an electronics recycling facility would see anywhere from a few hundred to a few thousand dollars in one-time costs for staff time or, in some cases, to hire a consultant to assist with preparing a plan of operation, a closure

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cost estimate and other paperwork. Facilities may have additional annual fees to be paid to banks or other institutions to set aside money (owner financial responsibility funds) for closure and cleanup costs. The owner financial responsibility amount (and thus the cost of obtaining it) would be directly related to the size of a facility, so that smaller operations would hold less than larger ones. The department estimates the average costs at \$800 per facility, with 15-20 facilities affected.

- Electronics dismantling/processing locations not currently part of E-Cycle Wisconsin would potentially incur a one-time \$550 Initial Site Inspection fee (paid to the department), along with the one-time staff or consultant costs for preparing a plan of operation and closure cost estimate, and costs for setting up owner financial responsibility. Facilities may have additional annual costs to banks or other institutions to maintain owner financial responsibility for closure and cleanup. The department expects most facilities to meet this requirement through obtaining a letter of credit or surety bond. Some facilities may have to implement new operating procedures or facility updates, but these are expected to be minimal. The department estimates that approximately 5-10 facilities not part of E-Cycle Wisconsin could be required to obtain a solid waste processing license, and most of these would be relatively small facilities. The department estimates the average total initial costs for a facility at \$1,400 and annual costs at approximately \$200-\$300 for fees paid to banks or other institutions.

Table 3 summarizes the figures used to calculate facility costs. The department used the U.S. Bureau of Labor Statistics' average hourly wage of \$30.73 for compliance officers in Wisconsin.

Table 3: Estimated per-facility one-time costs to obtain solid waste processing license

Entity	Est. # hours to obtain license	Total staff cost	Owner financial responsibility cost	ISI cost**	Total cost
Registered recycler*	10	\$307.30	--	\$0.00	\$307.30
Registered collector that dismantles	15	\$460.95	\$300.00	\$0.00	\$760.95
Other recycling facility	20	\$614.60	\$250.00	\$550.00	\$1,414.60

*Registered recyclers are already required to maintain owner financial responsibility (OFR), and the department does not expect them to have additional costs for this.

** The department would not require an Initial Site Inspection (ISI) for facilities that are already operating when the new rule takes effect, unless a facility was expanding.

Table 4 summarizes the number of facilities affected and their estimated one-time costs.

Table 4: Estimated aggregate one-time costs for obtaining a DNR solid waste processing facility license

Facility type	# facilities	Average cost per facility	Total cost
Registered E-Cycle Wisconsin recyclers	7	\$300	\$2,100
Registered E-Cycle Wisconsin collectors that dismantle some electronics	15-20	\$800	\$12,000-\$16,000
Other electronics recycling facilities	5-10	\$1,400	\$7,000-\$14,000
Totals	27-37		\$21,100-\$32,100

Annual owner financial responsibility costs: in-state electronics recycling facilities

Fees vary depending on the type of instrument the facility uses to set aside funds. Most types of owner financial responsibility (OFR), including the frequently used letter of credit or surety bond methods, require annual fees paid to a bank or other financial institution. A deposit with the department for the full amount of estimated closure costs would not have fees; however, most facilities find it financially difficult to set aside enough to cover full closure and choose

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other methods instead.

Registered E-Cycle Wisconsin recyclers already pay these fees to meet their requirements under s. 287.17 (8) (c), Stats., so the department does not anticipate they would have additional annual costs. The department estimates other in-state electronics recycling facilities (both registered E-Cycle Wisconsin collectors and other facilities) would pay an additional \$250 per year on average to obtain and maintain their OFR. This would mean an estimated total aggregate cost of \$6,000 to \$9,000 per year for the estimated 20 to 30 facilities it would affect.

Impact on state economy and fiscal impact:

The department does not anticipate an adverse impact of this rule to the state's economy.

The department anticipates additional revenue from fees paid to the agency for in-state electronics recycling facilities and manufacturers of video game systems. This includes estimated one-time Initial Site Inspection fees of \$2,750 to \$5,500 for five to 10 in-state electronics recycling facilities, and estimated annual manufacturer registration fees of \$7,500 (total for the four manufacturers the department estimates would need to register new brands of video game systems).

Public utility rate payers:

The department does not anticipate the promulgation of this rule to affect utility rate payers.

Impact on local government:

The department is not currently aware of local governments that are dismantling or manufacturing electronics, so does not anticipate local governments would incur any of the costs outlined here.

15. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

The department believes this rule will bring more clarity to existing regulations for affected parties, reduce pollution from mismanagement of hazardous electronic waste, and provide a more level playing field among electronics recyclers.

For E-Cycle Wisconsin program participants, the rule will clearly set out steps needed to meet statutory requirements. It will also create a more level playing field by making owner financial responsibility requirements more consistent between in-state and out-of-state facilities.

The rule will also clarify definitions of covered electronic devices, requiring manufacturers of some video game systems to fund electronics recycling efforts, which will increase manufacturer funding of electronics recycling in Wisconsin, further reduce toxic as well as salvageable materials going into Wisconsin's landfills, and potentially reduce recycling costs for Wisconsin households and schools.

Requiring solid waste processing licenses for facilities dismantling or processing electronics could reduce or avoid costs to landlords and governments for cleaning up sites where electronics were mismanaged. One site where electronics were dumped and burned on a small residential property required an Environmental Protection Agency cleanup costing \$163,000 in 2015. The department estimates that mismanagement of electronics by unlicensed recyclers without owner financial responsibility in place has resulted in the need for more than \$2 million in environmental cleanups since 2015. The majority of these costs are currently covered either by taxpayers or by landlords who own the properties on which the material has been mismanaged. The licensing process will require recyclers to meet specific locational and operational requirements, potentially discouraging unqualified facilities from becoming established and reducing supply of electronics to unlicensed individuals or facilities.

STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION
DOA-2049 (R09/2016)

DIVISION OF EXECUTIVE BUDGET AND FINANCE
101 EAST WILSON STREET, 10TH FLOOR
P.O. BOX 7864
MADISON, WI 53707-7864
FAX: (608) 267-0372

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Without the rule, the department would need to continue to rely on guidance and existing rule language in chs. NR 500, 502 and 520. This would not address disparities between in-state and out-of-state facilities registered with E-Cycle Wisconsin. It would also not allow the department to provide oversight and technical assistance for all electronics recycling facilities located in Wisconsin, and would mean that many electronics recyclers continue to operate without any standard environmental and operational standards or owner financial responsibility in place, leading to potential costs for taxpayers and landlords.

16. Long Range Implications of Implementing the Rule

Implementing solid waste processing licensing requirements and adequate owner financial responsibility will reduce the likelihood of future unfunded cleanups of mismanaged electronics that taxpayers or property owners now pay.

17. Compare With Approaches Being Used by Federal Government

There is no existing or proposed federal regulation for electronics recycling.

18. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

Four other Midwest states (Illinois, Indiana, Michigan and Minnesota) have electronics take-back laws. Iowa does not have a similar law. In all four, all collectors and recyclers receiving and processing residential e-waste are required to register with the take-back programs (equivalent to E-Cycle Wisconsin). In contrast, Wisconsin's statute only requires collectors and recyclers participating in the manufacturer-funded E-Cycle Wisconsin program to register with the department.

Two of these states require recyclers to separately obtain a license or permit.

- Minnesota electronics recyclers are required to obtain a "permit by rule" as solid waste facilities, which require a simple application and a sign-off by local governments that they have met zoning requirements. Owner financial responsibility is not required.
- Indiana permits electronics recyclers that have 23 tons or more of material on-site for more than 5 days. The permits must be renewed every 5 years and require owner financial responsibility (\$200/ton for material on-site, with the state as the beneficiary.)

19. Contact Name

Sarah Murray

20. Contact Phone Number

608-234-0533

This document can be made available in alternate formats to individuals with disabilities upon request.

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ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

ATTACHMENT A

-
1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

The department estimates that approximately 75% of Wisconsin electronics recycling facilities (15 to 22 businesses) affected by the rule would be small businesses. The department estimates these businesses would have total aggregate one-time costs of \$14,250 to \$22,500. They would not have annual fees.

-
2. Summary of the data sources used to measure the Rule's impact on Small Businesses

The department reviewed a list of known electronics recycling facilities and estimated the number that were likely to meet the definition of a small business, based on staff knowledge of the businesses, including through past inspections.

-
3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- ☐ Less Stringent Compliance or Reporting Requirements
☐ Less Stringent Schedules or Deadlines for Compliance or Reporting
☐ Consolidation or Simplification of Reporting Requirements
☐ Establishment of performance standards in lieu of Design or Operational Standards
☒ Exemption of Small Businesses from some or all requirements
☐ Other, describe:

-
4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

The proposed rule includes exemptions from solid waste processing license requirements for facilities that recycle fewer than 25 electronic devices per year. The department will also waive annual solid waste processing license fees for all facilities.

-
5. Describe the Rule's Enforcement Provisions

Enforcement provisions are not included in the subsections of the rule affected by the proposed order. Department enforcement of violations of this, and all pretreatment standards promulgated by the department by rule, is authorized by s. 283.89, Stats. Solid waste enforcement provisions are found in s. 289.97, Stats., and s. NR 500.11, Wis. Adm. Code.

-
6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

☐ Yes ☒ No

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The statement of scope for this rule, SS 093-19, was approved by the Governor on August 29, 2019, published in Register No. 765A1 on September 3, 2019, and approved by the Natural Resources Board on December 11, 2019. This rule was approved by the Governor on insert date.

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
RENUMBERING AND AMENDING, AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board adopts an order to **renumber and amend** NR 500.03 (203) and 520.07 (2); to **amend** NR 502.05 (3) (a), 502.06 (2) (am), 502.07 (1) (b), (c), (cm), (2) (a), (c) and (2f), 502.08 (2) (f), 520 Table 2 Footnote (4); and to **create** NR 500.03 (71g), (71m), (71r) and (203) (b), 502.04 (6) Note, 502.06 (2) (ag) and (L), 502.07 (2) (am), (cm), and (2d), 502.08 (1) (c), (2) (j), (k), and (6) (p), 520.07 (2m) and ch. 530 relating to implementing electronics recycling program requirements and affecting small business.

WA-11-19

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted:

Section 287.07, s. 287.17, and s. 289.05 (1), Wis. Stats.

2. Statutory Authority:

Section 287.03, s. 287.17, and s. 289.06 (1), Wis. Stats.

3. Explanation of Agency Authority:

Section 287.03, Wis. Stats., directs the department to promulgate rules necessary to implement ch. 287, Wis. Stats.

In addition, s. 287.17, Wis. Stats., gives the department specific authority for promulgating rules related to certain aspects of the electronics recycling law. Section 287.17 (10) (k), Wis. Stats., gives the department authority to modify manufacturer registration fees. Section 287.17 (10) (i), Wis. Stats., gives the department authority to modify the list of eligible electronic devices in s. 287.17 (1) (gs), Wis. Stats., or the list of electronics banned from landfill or incinerator disposal in s. 287.07 (5) (a), Wis. Stats. Section 287.17 (8) (e) gives the department authority to modify or add to operational requirements for registered recyclers.

Section 289.06 (1), Wis. Stats., directs the department to promulgate rules implementing and consistent with ch. 289 and ss. 292.31 and 292.35, Wis. Stats.

4. Related Statutes or Rules:

Chapter NR 500, Wis. Adm. Code, General Solid Waste Management Requirements

Chapter NR 502, Wis. Adm. Code, Solid Waste Storage, Transportation, Transfer, Incineration, Air Curtain Destructors, Processing, Wood Burning, Composting And Municipal Solid Waste Combustors

Chapter NR 520, Wis. Adm. Code, Solid Waste Management Fees And Financial Responsibility Requirements

Section 287.07, Wis. Stats., prohibitions on land disposal and incineration, including for electronic devices.

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5. Plain Language Analysis:

Wisconsin's electronics recycling law (2009 Wisconsin Act 50) established a statewide product stewardship program to collect and recycle certain electronics from Wisconsin households and schools (now in s. 287.17, Wis. Stats.). This recycling program, funded by manufacturers of TVs, computers, monitors and printers, is called E-Cycle Wisconsin. The law also banned landfill and incinerator disposal of many electronics beginning in September 2010 under s. 287.07 (5), Wis. Stats.

To date, the department has not promulgated any rules related to ss. 287.07 (5) or 287.17, Wis. Stats. Section 287.17, Wis. Stats., was intended to be detailed enough for the department to complete initial implementation without rulemaking (it prohibited the department from promulgating rules during the first two years of the program).

Since 2009 Wisconsin Act 50 took effect, the state's electronics recycling industry has grown and matured, and relationships among electronics collection points, consolidation points, recycling facilities and electronics manufacturers have become more complex. The department has worked extensively with program participants over the years to develop and improve streamlined, online registration and report forms. These allow the department to verify the accuracy of information that collectors, recyclers and manufacturers report, and also provide data to update a public list of electronics recycling options in real time, which the department identified as a high priority based on statewide surveys of Wisconsin households. In addition, the department has worked with stakeholders to put in place a flexible and efficient marketplace for the buying and selling of credit for recycled eligible electronic devices, making it easier for manufacturers to meet their recycling targets and for recyclers to recover costs. The proposed new ch. NR 530, Wis. Adm. Code, codifies many of these improved and streamlined registration and reporting practices.

Prior to the electronics recycling law's enactment in 2009, and anticipating increasing volumes of electronic devices reaching the end of their service life, the department modified regulatory requirements for electronics recycling to encourage development of e-cycling infrastructure. The department exempted electronics recyclers from solid waste processing license requirements under s. NR 502.08 (2) (f), Wis. Adm. Code, as "Facilities for the processing of scrap iron, steel or nonferrous metal using large machines to produce a principal product of scrap metal for scrap or use for remelting purposes." Transporters were also exempted from solid waste transporting requirements under s. NR 502.06 (2) (a), Wis. Adm. Code, as "Services for the collection and transportation of only gravel pit spoils, quarry materials, earth materials or salvageable materials other than those listed in s. 287.07 (3) or (4), Stats."

Since these decisions were made, there have been several significant changes in the electronics recycling landscape that have led the department to re-examine this interpretation with this rulemaking and seek to define requirements for electronics collection, transportation and recycling activities. These included:

- Significant growth in Wisconsin's electronics recycling infrastructure, due largely to 2009 Wisconsin Act 50, including the rapid growth among a handful of high-tech recycling facilities in the state.
- An increase in enforcement cases resulting from irresponsible recyclers or "scrappers" removing high value metals from electronics while illegally leaving hazardous materials behind. Since 2015, the department estimates these cases have led to more than \$2 million in completed or projected cleanups. The majority of these costs are covered either by taxpayers or by landlords who own the properties on which the material has been mismanaged.
- A large change in the market for glass from cathode ray tubes (CRTs), which has made recycling older TVs and monitors much more expensive and led to stockpiles of CRTs and lead-containing CRT glass which is a hazardous waste.
- Greater public awareness of the need to recycle electronics, and more demand for legitimate recyclers providing these services.

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- The rapid and continued evolution of electronics, which has changed both the commodity value of electronic waste and the methods and tools needed to properly recycle it. Newer electronics have a lower metal content (more valuable as commodities) with a commensurate increase in plastic components with a lower commodity value. They contain fewer toxic materials, but more flammable, difficult-to-remove lithium ion batteries, which add labor and fire prevention costs.

Many elements in this rule come directly from discussions with E-Cycle Wisconsin program stakeholders over the years. At the most recent E-Cycle Wisconsin stakeholder meeting in May 2018, participants were positive about the electronics recycling law, but noted several areas of concern, including a need for more actions to deter bad actors; the lack of affordable, convenient recycling for some state residents; a lack of consumer awareness about the need to responsibly recycle electronics; and economic and safety issues the changing electronic waste stream has brought to collectors and recyclers. The department has addressed these concerns in the proposed rule.

Changes to existing chs. NR 500, 502 and 520, Wis. Adm. Code

The department is proposing the following changes to chs. NR 500, 502 and 520, Wis. Adm. Code, to ensure safe collection, transportation and processing of electronic waste and to make regulation of these activities more consistent with other types of solid waste:

- A. Definitions:** The rule creates and amends definitions in s. NR 500.03, Wis. Adm. Code, to make it clear that electronic devices are a different type of material than scrap metal, appliances or other materials defined in this section, and to clarify what is and is not included in electronics processing. This is necessary because many appliances, cars and other items would now also meet the definition of an electronic device. The rule specifically excludes electronic devices from the definition of “salvageable materials” in s. NR 500.03 (203), Wis. Adm. Code, which required the department to amend or add language in several parts of ch. NR 502 to clarify requirements for electronic devices.
- B. Storage of waste electronic devices at apartments, commercial establishments, business establishments and industries:** The rule amends language in s. NR 502.05 (3) (a), Wis. Adm. Code, to ensure electronics and similar devices that may not need to be stored in containers are still eligible for this exemption from solid waste storage licensing.
- C. Transportation of electronic waste:** The rule adds and amends language in s. NR 502.06, Wis. Adm. Code, to exempt trucks carrying only electronic waste for recycling from the requirement to obtain a solid waste collection and transportation (C&T) license from the department, but to retain basic operational requirements to ensure the electronics remain recyclable and that haulers comply with the electronics disposal ban. It also creates an exemption from C&T licensing for parcel carriers transporting incidental amounts of solid waste for recycling, such as electronic devices, smoke detectors, or other items recycled through mail-back programs.
- D. Solid waste transfer stations that handle electronic waste:** The rule amends an exemption in s. NR 502.07, Wis. Adm. Code, to ensure electronics collection sites can meet the conditional license exemption as transfer stations in s. NR 502.07 (2), Wis. Adm. Code, when electronics are appropriately stored in cardboard Gaylords or on pallets and do not need to be moved off-site weekly. It also creates a new conditional exemption from solid waste transfer facility licensing for facilities such as retailer logistics centers, where loads of electronics collected from stores are consolidated.
- E. Solid waste processing license requirements for electronics processing facilities:** The rule

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adds language to s. NR 502.08, Wis. Adm. Code, to require electronics processing facilities to obtain a solid waste processing license from the department and meet applicable code requirements for obtaining and maintaining that license. The rule exempts very small-scale electronics processing activities from licensing, along with electronics repair, which pose a low risk to human health or the environment and for which obtaining department approval would be burdensome and inefficient for both the facility and for the department. An addition to s. NR 502.08 (6), Wis. Adm. Code, is meant to ensure that third-party haulers contracted by electronics processing facilities are informed of applicable requirements under s. NR 502.06 (2) (ag), Wis. Adm. Code.

- F. Clarification of solid waste fees and financial responsibility requirements:** The rule makes small changes in ch. NR 520, Wis. Adm. Code, to ensure electronics processing facilities are covered by this chapter in the same way that other solid waste processing facilities are, including being exempted from annual licensing fees, and to clarify what must be included in closure cost estimates for non-landfill solid waste facilities. This part of the rule addresses the most common bad actor problem, where a facility removes the most valuable components and leaves less valuable materials behind as waste.

Creation of ch. NR 530, Wis. Adm. Code, specific to the E-Cycle Wisconsin program

The new chapter only covers activities and entities regulated under s. 287.17, Wis. Stats. This includes both in-state and out-of-state brokers, collectors, manufacturers, recyclers and retailers.

Generally, the proposed ch. NR 530, Wis. Adm. Code, matches existing registration and report forms, guidance, and other current practices. The rule seeks to codify some of the streamlined approaches that have been developed by the department and industry and to establish rules for the marketplace in recycling credits that has developed since the 2009 statute was enacted. These include:

- Clarification of which devices meet the definitions of “computer monitor,” “computer peripheral” and “consumer computer” under s. 287.17 (1), Wis. Stats.
- Requirements for information submitted with annual registration and report forms.
- Eligibility of electronic devices recovered from waste loads or illegal dumping to count toward manufacturers’ weight recycled.
- The reasons and process for suspension and revocation of program registrations.
- Options for electronics retailers to comply with the prohibition in s. 287.17 (2) (c), Wis. Stats., on selling unregistered brands of covered electronics.

Below are the requirements that are new or different under this rulemaking:

- A. Criteria for determining when materials are “recyclable”:** The existing s. 287.17 (1) (m), Wis. Stats., defines recycling as “preparing eligible electronic devices for use in manufacturing processes or for recovery of usable materials and delivering the materials for use.” It 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.

The statute does not provide criteria for the department, manufacturers or recyclers to determine whether a material is “recyclable.” As markets for materials like cathode ray tube glass and plastics have shifted and dwindled, it has sometimes been difficult for the department to provide guidance on whether the weight of certain material from eligible electronic devices sent for disposal would still be eligible for manufacturer credit because it is not “recyclable.” The proposed rule lays out criteria to help make this determination.

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- B. Registered recyclers:** The proposed rule makes small changes to operational and reporting requirements for registered recyclers, primarily to ensure owner financial responsibility (OFR) required under s. 287.17 (8) (c), Wis. Stats., adequately covers facility closure and cleanup costs.
1. On their annual registration, registered recyclers would need to list all facilities where they recycle or store eligible electronics (currently, they are only required to list facilities where they recycle eligible electronics) and maintain OFR for any storage facilities, in addition to the current requirement to maintain OFR for recycling facilities.
 2. In-state registered recyclers would be subject to the solid waste processing license requirement described in the previous section under (F), and would need to follow the OFR requirements in ch. NR 520, Wis. Adm. Code. For the most part, in-state recyclers' existing OFR should already meet these requirements. They would be required to name the department as the beneficiary or obligee for their OFR (nearly all do so already).
 3. To ensure a level playing field with in-state recyclers, there would be more specific requirements for the OFR maintained by out-of-state registered recyclers, including naming an independent third party as the beneficiary or obligee, estimating costs based on an independent third party performing the work, and notifying the department of OFR changes or cancellation in a timely manner.
 4. The rule also adds a requirement for registered recyclers to use and keep records of bills of lading for shipments of electronic devices or components under E-Cycle Wisconsin for at least 3 years. The U.S. Department of Transportation already requires bills of lading for most shipments, but the rule specifies details that should be included in shipments of electronics under the program.
- C. Registered collectors:** The proposed rule requires registered collectors to keep independent records of the dates and volumes of loads of eligible electronics they ship under the E-Cycle Wisconsin program. The goal is to maintain the ability to cross-check and verify reports provided to collectors by receiving facilities.
- D. Authorized brokers:** Several entities have been operating as brokers under E-Cycle Wisconsin since the program began. The proposed rule defines the term "authorized broker" as a person that provides services to registered manufacturers and registered recyclers for the purpose of cooperation under s. 287.17 (2) (b), Wis. Stats., and that complies with the notification requirement at s. NR 530.10 (2), Wis. Adm. Code. The only substantive change from existing practices is a requirement that registered recyclers that purchase recycled weight (often called "paper weight") from other registered recyclers would be required to complete a broker form, as well as the registered recycler form.
- E. Electronics retailers:** The proposed rule provides more specifics for how retailers meet the customer education requirements in s. 287.17 (9), Wis. Stats. To meet the customer education requirement, all retailers would need to include information on receipts for covered electronics about the electronics disposal bans and how to recycle eligible electronics. This could include linking to the department's website. In brick-and-mortar stores, this information would also need to be posted prominently in either the store's electronics section or by registers.
- F. Clarifying definitions of covered electronic devices:** The proposed rule clarifies that components of video game systems, such as gaming consoles, are covered electronic devices if they meet the definition of "consumer computer" under s. 287.17 (1) (e), Wis. Stats. This would require manufacturers of these devices, the modern versions of which have much the same functionality as conventional computers, to register their brands, pay annual registration fees if

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applicable, and meet annual recycling targets based on the weight of these devices sold to Wisconsin households and covered schools.

- G. Addition of eligible electronic devices:** The proposed rule adds three categories of devices to the list of eligible electronic devices under s. 287.17 (1) (gs), Wis. Stats., based on the department's determination under s. 287.17 (10) (i), Wis. Stats., that the disposal or burning of these devices in a solid waste facility may be harmful to human health or the environment, due primarily to the fire risk posed by lithium ion and other rechargeable batteries these devices typically contain.

The device categories are a telephone with a video display, a telephone accessory operated by a battery, and a component of a video game system or a portable hand-held video game device operated by a battery that does not meet the definition of a computer monitor or consumer computer. Telephones with video displays are already banned from landfills and incinerators under s. 287.07 (5), Wis. Stats., and the other two categories of devices are accessories to electronics that are or would be banned from landfills and incinerators. Adding these electronics as eligible electronic devices under E-Cycle Wisconsin will further facilitate and encourage their recycling and prevent them from causing fires during solid waste collection, transfer and disposal activities.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations: There is no existing or proposed federal regulation for electronics recycling.

7. Summary of Comments Received on the Statement of Scope and How the Agency Took Those Comments into Account in Drafting the Proposed Rule: The department did not receive any comments on the statement of scope for this rule.

8. Comparison with Similar Rules in Adjacent States: Four other Midwest states (Illinois, Indiana, Michigan and Minnesota) have electronics take-back laws. Iowa does not have a similar law. In all four, all collectors and recyclers receiving and processing residential e-waste are required to register with the take-back programs (the programs equivalent to E-Cycle Wisconsin). In contrast, Wisconsin's statute only requires collectors and recyclers participating in the manufacturer-funded E-Cycle Wisconsin program to register with the department.

Two of these states require recyclers to separately obtain a license or permit.

- Minnesota electronics recyclers are required to obtain a "permit by rule" as solid waste facilities, which requires a simple application and a sign-off by local governments that they have met zoning requirements. OFR is not required.
- Indiana issues permits to electronics recyclers that have 23 tons or more of material on-site for more than 5 days. The permits must be renewed every 5 years and require owner financial responsibility (\$200/ton for material on-site, with the state as the beneficiary).

9. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen: The E-Cycle Wisconsin program began in 2010, and the department receives and analyzes annual reports from registered collectors, recyclers and manufacturers, and brokers. The department also conducts on-site inspections of registered collection sites and recyclers, and in-store and online inspections of electronics retailers. The department used data from these reports and inspections to identify areas where additional clarifications or requirements could improve the program's function and efficiency and provide a more level playing field for participants.

There are currently 16 recyclers registered with E-Cycle Wisconsin, 6 located in Wisconsin and 10 based

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in other states. The department regularly requests and reviews paperwork from all registered recyclers to verify closure cost estimates and OFR methods and amounts. The department used this data to inform adjustments to OFR requirements in both ch. NR 520 and the new ch. NR 530, Wis. Adm. Code.

The department also reviewed estimated or actual cleanup costs from enforcement cases related to electronics mismanagement since 2007.

In addition, the department gathered information to inform these rule changes at several E-Cycle Wisconsin stakeholder meetings. At the most recent E-Cycle Wisconsin stakeholder meeting in May 2018, participants were positive about the electronics recycling law, but noted several areas of concern, including a need for more actions to deter bad actors; the lack of affordable, convenient recycling for some state residents; a lack of consumer awareness about the need to responsibly recycle electronics; and economic and safety issues the changing electronic waste stream has brought to collectors and recyclers.

10. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report: The proposed rule requires a solid waste processing plan of operation for electronics dismantling and processing activities. This would entail a one-time cost for some facilities, including small businesses, which is addressed in Section 11 of this board order below. These facilities would also be required to obtain an annual license; however, the department would waive annual licensing fees, as it currently does for other solid waste processing facilities with a primary purpose of recycling. Some of these costs could be offset by attracting customers that are seeking to work with department-licensed facilities, to ensure electronics are legitimately recycled.

The department considered cost estimates from industry sources and department experience with other solid waste processing facilities in preparation of the economic impact analysis. This included the following:

- The department reviewed existing owner financial responsibility documents for registered E-Cycle Wisconsin recyclers to determine whether any of these recyclers would need to make changes based on the proposed rule language.
- Department staff experience was used to estimate the average number of hours each electronics recycling facility's staff would spend to obtain a solid waste processing license, and U.S. Bureau of Labor wage data was used to estimate costs for facility staff time.
- The department reviewed a list of known electronics processing facilities and estimated the number that were likely to meet the definition of a small business, based on department staff knowledge of the businesses, including through past inspections.

11. Effect on Small Business (initial regulatory flexibility analysis): The department estimates that approximately 75% of Wisconsin electronics processing facilities affected by the rule, or approximately 20 facilities, would be small businesses. The department estimates these businesses would have aggregate one-time costs of \$15,000-\$24,000 (or an average of \$750 to \$1,200 per facility). They would not be required to pay annual licensing fees to the department.

The proposed rule includes exemptions from solid waste processing license requirements for facilities that process fewer than 25 electronic devices per year. The department will also waive annual solid waste processing license fees for all facilities.

12. Agency Contact Person: Sarah Murray, Wisconsin Department of Natural Resources, PO Box 7921, Madison, WI 53707-7921; Sarah.Murray@wisconsin.gov; (608) 264-6001

13. Place where comments are to be submitted and deadline for submission: An online hearing was

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held on June 28, 2021. Comments were accepted through July 7, 2021.

RULE TEXT

SECTION 1. NR 500.03 (71g), (71m) and (71r) are created to read:

NR 500.03 (71g) “Electronic device” has the meaning specified under s. 287.17 (1) (gm), Stats., but does not include a major appliance, as defined under sub. (136), or a motor vehicle.

(71m) (a) “Electronics processing” means processing electronic devices for use in manufacturing processes or for recovery of usable materials and includes processing electronic devices or components derived from electronic devices by disassembling, baling, crushing, grinding, and shredding.

(b) “Electronics processing” does not include any of the following:

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

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(71r) “Electronics processing facility” means a solid waste processing facility that accepts electronic devices or components derived from electronic devices for the purpose of electronics processing.

SECTION 2. NR 500.03 (203) is renumbered NR 500.03 (203) (a) and amended to read:

NR 500.03 (203) (a) “Salvageable material” means junk cars, machinery or equipment, scrap metal, or other junk or scrap materials ~~which~~ that are of further usefulness mainly as a raw material for reprocessing, or as imperfect stock from which replacement or spare parts can be extracted.

SECTION 3. NR 500.03 (203) (b) is created to read:

NR 500.03 (203) (b) “Salvageable material” does not include electronic devices as defined under sub. (71g).

SECTION 4. NR 502.04 (6) Note is created to read:

NR 502.04 (6) Note: Requirements for closure cost estimates for these facilities are found under s. NR 520.07 (2m).

SECTION 5. NR 502.05 (3) (a) is amended to read:

NR 502.05 (3) (a) Storage facilities ~~utilizing~~ storing major appliances, electronic devices, or furniture, or that utilize containers such as lugger boxes or rolloffs for solid waste storage ~~serving~~ that serve apartments, commercial establishments, business establishments, and industries ~~which~~ that are located on the premises served, provided the facility complies with the performance standards and closure requirements ~~in~~ under s. NR 502.04 (1) and (3) (a) and (b) and the operational requirements listed under sub. (5).

SECTION 6. NR 502.06 (2) (ag) is created to read:

NR 502.06 (2) (ag) Services for the collection and transportation of only waste electronic devices, or components derived from electronic devices, destined for reuse or recycling that comply with general operational requirements under sub. (4) (b), (d), (e), (f), and (g).

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Note: A container that otherwise contains only waste electronic devices may contain de minimis amounts of packaging or contamination.

SECTION 7. NR 502.06 (2) (am) is amended to read:

NR 502.06 (2) (am) Services for the collection and transportation of the materials listed ~~in~~under s. 287.07 (3) and (4), Stats., or non-hazardous materials derived from electronic devices, after the materials have been processed for reuse or recycling by conversion into a consumer product or a product ~~which~~that is used as a raw material in a commercial or industrial process.

SECTION 8. NR 502.06 (2) (L) is created to read:

NR 502.06 (2) (L) The operation of a vehicle owned or leased by the United States postal service or other parcel carrier service when solid waste constitutes an incidental portion of the carrier's business, if the solid waste is handled in accordance with all applicable state and federal regulations.

SECTION 9. NR 502.07 (1) (b), (c), (cm), and (2) (a) are amended to read:

NR 502.07 (1) (b) Unless exempt under sub. (2), ~~(2d), (2f), or (2m), owners and operators~~ an owner or operator of a new or expanded solid waste transfer facilities facility shall comply with initial site inspection requirements ~~in~~under s. NR 502.04 (2) and demonstrate compliance with the locational criteria ~~listed~~ under sub. (3).

(c) Unless exempt under sub. (2), ~~(2d), (2f), (2m), or (2r)~~, no person may operate or maintain a solid waste transfer facility unless the person has received approval of a plan of operation as specified ~~in~~under sub. (4).

(cm) Unless exempt under sub. (2), ~~(2d), (2f), or (2m)~~, no person may operate or maintain a solid waste transfer facility unless the person has obtained an operating license from the department.

(2) (a) Containers that do not hold only waste electronic devices shall be leak-proof and manufactured of nondegradable material such as metal, plastic or concrete.

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SECTION 10. NR 502.07 (2) (am) is created to read:

NR 502.07 (2) (am) Containers or packaging material holding only waste electronic devices shall be adequate to prevent breakage and spills, compatible with the contents, and manufactured of material that will remain structurally sound for the length of time material is stored. Electronic devices shall be stored in a manner that will prevent damage from weather, theft or vandalism.

Note: A container that otherwise contains only waste electronic devices may contain de minimis amounts of packaging or contamination.

SECTION 11. NR 502.07 (2) (c) is amended to read:

(c) Containers that do not hold only waste electronic devices shall be removed or emptied at least once per week and more frequently if conditions warrant.

SECTION 12. NR 502.07 (2) (cm) and (2d) are created to read:

(cm) A facility shall demonstrate that containers, pallets or other packaging material holding only waste electronic devices, along with any waste electronic devices stored outside of a container, are removed or emptied at least once per year.

(2d) EXEMPT ELECTRONICS TRANSFER FACILITIES. A facility for the transfer of waste electronic devices intended for recycling that is not exempt under sub. (2) shall be operated and maintained in a nuisance-free manner and comply with the performance standards and closure requirements under s. NR 502.04 (1) and (3) (a) and (b), but is exempt from all other requirements of this chapter, provided the facility is operated and maintained in conformance with all of the following practices:

(a) Containers or packaging material shall be adequate to prevent breakage and spills, compatible with the contents, and manufactured of material that will remain structurally sound for the length of time material is stored. Electronic devices shall be stored in a manner that will prevent damage from weather, theft or vandalism.

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(b) A facility shall demonstrate that containers, pallets or other packaging material holding only waste electronic devices, along with any waste electronic devices stored outside of a container, are removed or emptied at least once per year.

(c) The transfer facility and adjacent area shall be kept clean and free of litter.

(d) Burning of solid waste may not be conducted.

(e) Effective means shall be provided to control rodents, flies, and other insects or vermin.

(f) An all-weather access road and parking area shall be provided and maintained.

SECTION 13. NR 502.07 (2f) is amended to read:

NR 502.07 (2f) EXEMPT RECYCLING TRANSFER FACILITIES. ~~Facilities~~A facility only for the transfer of items listed ~~in~~under s. 287.07 (3) ~~or (4), Stats., except waste tires listed in~~ s. 287.07 (3), Stats., shall comply with the operational requirements ~~in~~under sub. (7) (a), (c), (d), (i), (k), and (o), and the performance standards and closure requirements ~~in~~under s. NR 502.04 (1) and (3) (a) and (b), and, for new or expanded facilities opening after July 1, 2005, the locational criteria ~~in~~under sub. (3), but ~~are~~is exempt from all other requirements of this chapter.

SECTION 14. NR 502.08 (1) (c) is created to read:

NR 502.08 (1) (c) Unless exempted under sub. (2) (j) or (k), an electronics processing facility shall comply with all requirements of this chapter beginning on the effective date of this section [LRB inserts date].

SECTION 15. NR 502.08 (2) (f) is amended to read:

NR 502.08 (2) (f) ~~Facilities~~A facility for the processing of scrap iron, steel, or nonferrous metal using large machines to produce a principal product of scrap metal for sale or use for remelting purposes. This exemption does not apply to a facility for the processing of electronic devices.

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SECTION 16. NR 502.08 (2) (j), (k) and (6) (p) are created to read:

NR 502.08 (2) (j) A person or electronics processing facility processing fewer than 25 electronic devices per year, provided the person or electronics processing facility complies with performance standards and closure requirements under s. NR 502.04 (1) and (3) (a) and (b), and the minimum operation requirements under sub. (6) (e), (g), (i), (k), (L), and (n).

(k) A facility that only hand sorts and packages waste electronic devices, including removing cords, ink or toner cartridges, or batteries from electronic devices, for shipping or transport to an electronics processing facility without engaging in any additional electronics processing activities, provided the facility complies with performance standards and closure requirements under s. NR 502.04 (1) and (3) (a) and (b), and the minimum operation requirements under sub. (6) (e), (g), (h), (i), (k), (L), and (n).

(6) (p) The operator of an electronics processing facility shall notify any collection and transportation service operating under s. NR 502.06 (2) (ag) that it contracts with of the need to comply with the operational requirements under s. NR 502.06 (2) (ag). The operator of the electronics processing facility shall meet all of the following requirements for notification:

1. Notification shall be in writing and provided at the time of entering into a contract for collection and transportation services and annually thereafter.

2. The electronics processing facility shall maintain documentation of this notification for the preceding calendar year.

SECTION 17. NR 520.07 (2) is renumbered NR 520.07 (2) (intro.) and amended to read:

NR 520.07 (2) CLOSURE COSTS FOR LANDFILLS. At a minimum, closure costs for a landfill shall include; ~~the~~ all of the following:

(a) The purchasing, hauling, placement, and documentation testing of all the final cover materials including soils, membranes, fabrics, and grids and topsoil; seeding.

(b) Seeding, fertilizing, mulching, and labor; the.

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(c) The installation of gas removal and treatment devices; ~~the~~

(d) The cost of preparing an engineering report documenting the work performed; ~~and~~

(e) A 10%~~percent~~ contingency.

SECTION 18. NR 520.07 (2m) is created to read:

NR 520.07 (2m) CLOSURE COSTS FOR FACILITIES REQUIRED TO PROVIDE PROOF OF FINANCIAL RESPONSIBILITY. (a) At a minimum, closure costs for a facility required to provide proof of financial responsibility under s. NR 502.04 (6) shall include all of the following:

1. Work to remove entire remaining inventory including equipment and materials, recycling or disposal costs, transportation, labor, supervision, overhead costs, and taxes.
2. Decontamination.
3. Equipment decommissioning.
4. A 10 percent contingency.

(b) Cost estimates under par. (a) shall be based on the maximum volumes approved to be on-site, including material stored before and after processing and material undergoing processing or on sort lines.

SECTION 19. NR 520 Table 2 Footnote (4) is amended to read:

NR 520 Table 2 Footnote (4) The department shall waive the plan review fees and license fees for a processing facility, including a composting facility or an electronics processing facility, or incinerator ~~which~~ that has a primary purpose of converting solid waste into usable materials, products, or energy. The waiver does not include the initial site and construction inspection fees or the construction documentation review fee.

SECTION 20. Chapter NR 530 is created to read:

Chapter NR 530

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ELECTRONIC WASTE RECYCLING PROGRAM REQUIREMENTS

NR 530.01 Purpose. The purpose of this chapter is to ensure the electronic waste recycling program created under s. 287.17, Stats., functions well for participants and the public, and in a manner that protects public health and the environment. This chapter is adopted under ss. 287.03, 287.17 (8) and (10), and 289.06, Stats.

NR 530.02 Applicability. (1) Except as otherwise provided, this chapter governs all entities and activities regulated under s. 287.17, Stats.

(2) This chapter does not apply to an electronics collection or recycling facility that is not registered under s. 287.17, Stats.

NR 530.03 Definitions. In this chapter, the following definitions, as well as the definitions in s. 287.17, Stats., apply:

(1) “Authorized broker” means a person who provides services to registered manufacturers and registered recyclers for the purpose of cooperation under s. 287.17 (2) (b), Stats., and who complies with the notification requirement under s. NR 530.10 (2).

(2) “Collection” has the meaning specified under s. 287.17 (1) (b), Stats.

(3) “Recycled weight” means the weight of eligible electronic devices used by households or schools in this state that are recycled by a registered recycler that may count toward the total weight of eligible electronic devices recycled reported by a registered manufacturer under s. 287.17 (5) (b), Stats.

(4) “Registered collector” has the meaning specified under s. 287.17 (1) (mg), Stats.

(5) “Registered manufacturer” means a manufacturer registered under s. 287.17 (3), Stats.

(6) “Registered recycler” has the meaning specified under s. 287.17 (1) (mr), Stats.

NR 530.04 Electronic device categories. (1) A computer monitor includes any of the following:

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(a) A video display with a screen of at least 7 inches in the longest diagonal direction used with a consumer computer.

(b) A video display with a screen of at least 7 inches in the longest diagonal direction intended to display video or other content from the internet.

(c) A smart home device with a screen of at least 7 inches in the longest diagonal direction.

(d) An e-reader or other portable electronic device with a screen of at least 7 inches in the longest diagonal direction that displays information from the internet or a processor.

(e) Any other electronic device that meets the definition under s. 287.17 (1) (d), Stats., and is not specifically excluded in that section or this chapter.

(2) A computer peripheral includes any of the following:

(a) A camera designed for use with a consumer computer.

(b) An external CD/DVD drive.

(c) An external hard drive.

(d) An external modem or router.

(e) A flash drive, memory stick, or similar storage device designed for use with a consumer computer.

(f) A game controller designed for use with a consumer computer.

(g) A keyboard designed for use with a consumer computer.

(h) A mouse or similar input device.

(i) A projector designed for use with a consumer computer.

(j) A scanner designed for use with a consumer computer.

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(k) A speaker designed for use with a consumer computer.

(L) Any other electronic device that meets the definition under s. 287.17 (1) (j), Stats., and is not specifically excluded in that section or this chapter.

(3) A consumer computer includes any of the following:

(a) An all-in-one desktop-style computer with a screen that is integrated with the processor.

(b) A laptop, netbook, or notebook computer.

(c) A server used by a household or covered school.

(d) A tablet computer.

(e) A thin client or other computer that runs from resources stored on a server instead of a local hard drive.

(f) A tower or box desktop-style computer without a monitor.

(g) A component of a video game system that meets the definition under s. 287.17 (1) (e), Stats., of a consumer computer.

(h) Any other electronic device that meets the definition under s. 287.17 (1) (e), Stats., and is not specifically excluded in that section or this chapter.

NR 530.05 Eligible electronic devices. (1) The department has determined under s. 287.17 (10) (i), Stats., that the disposal or burning of all of the following electronic devices in a solid waste facility may be harmful to human health or the environment and are eligible electronic devices under s. 287.17 (1) (gs), Stats.:

(a) A telephone with a video display.

(b) A telephone accessory operated by a battery.

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(c) A component of a video game system or a portable hand-held video game device operated by a battery that does not meet the definition of a computer monitor or consumer computer.

NR 530.06 Eligibility of electronic devices for manufacturer weight recycled. (1)

CRITERIA FOR DETERMINING WHETHER MATERIAL IS NOT RECYCLABLE. To determine whether a component or material from an eligible electronic device is not recyclable, and thus may be disposed of through land disposal, destruction by incineration, or other processes, while remaining eligible to count toward a registered manufacturer's weight of eligible electronic devices recycled under s. 287.17 (5) (b), Stats., the department shall consider all of the following:

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

(2) ELIGIBILITY OF ELECTRONIC DEVICES RECOVERED FROM ILLEGAL DUMPING OR DISPOSAL TO COUNT TOWARD MANUFACTURER WEIGHT RECYCLED. If a registered collector receives an eligible electronic device recovered from waste loads or illegal dumping that can reasonably be assumed to have come from a household or covered school in this state, the eligible electronic device may be sent to a registered recycler for recycling on behalf of a registered manufacturer.

NR 530.07 Requirements for registered manufacturers. On the registration under s. 287.17 (3) (a), Stats., a registered manufacturer shall include all of the following:

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(1) The date on which the manufacturer began selling the brands of covered electronic devices offered for sale in this state and, if applicable, the date it stopped selling the brands.

(2) A list of the brands and types of eligible electronic devices accepted through the manufacturer's mail-back recycling program, if applicable, and information on how households or covered schools can access the program, including a website address, if available.

NR 530.08 Requirements for registered collectors. (1) REGISTRATION. (a) A registered recycler or manufacturer shall also register as a collector if the recycler or manufacturer is accepting electronic devices from a household or covered school for recycling on behalf of a registered manufacturer.

(b) A registered collector shall include all of the following information with its registration under s. 287.17 (7) (a), Stats.:

1. A list of the electronic devices banned from disposal under s. 287.07 (5), Stats., that the collector accepts.

2. The site name, street address, and county for any location where the collector accepts eligible electronic devices used by households, and a phone number that households may call for more information about the location.

3. The date and time of any collection event to be held by the collector, if known at the time of registration, or any collection event held during the previous program year, along with the information listed under subd. 2 for the event.

4. Fees the collector charges households or covered schools to accept eligible electronic devices for recycling.

(c) A registered collector shall notify the department in a timely manner if any of the information provided under par. (b) 1. to 3. changes before the time of its next registration under s. 287.17 (7) (a), Stats..

(2) REPORTING. (a) In the annual report submitted under s. 287.17 (7) (b), Stats., a registered collector shall report to the department the total weight of eligible electronic devices

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used by households or covered schools it collected in this state during the preceding program year. The report shall identify the following, as applicable:

1. The total weight of eligible electronic devices sent to registered recyclers during the preceding program year, along with the name of each registered recycler that received weight, and the weight sent to each.
2. The total weight of eligible electronic devices sent to other registered collectors during the preceding program year, along with the name of each registered collector that received weight, and the weight sent to each.
3. The total weight of eligible electronic devices received from other registered collectors during the preceding program year, along with the name of each registered collector that sent weight, and the weight received from each.
4. The total weight of eligible electronic devices dismantled instead of sending to a registered recycler during the preceding program year.
5. The total weight of eligible electronic devices sent to a non-registered recycler during the preceding program year.

(b) For weights reported under par. (a) 1. to 3., the collector shall report separate totals for the weight of eligible electronic devices used in rural and urban counties. When the source county is unknown, the weight shall be counted in the total for urban counties.

(3) RECORDKEEPING. (a) A registered collector shall maintain records of the dates it sent eligible electronic devices to another registered collector or a registered recycler, along with the bill of lading, scale receipt, or approximate weight or size of the load. These records shall be kept independently from receipts or other records received from the collector or recycler that received the eligible electronic devices.

(b) A registered collector shall maintain records related to the program under this section and reports required under this section for at least 3 years and present records to the department upon request.

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NR 530.09 Requirements for registered recyclers. (1) REGISTRATION. (a) A registered collector or manufacturer shall also register as a recycler if the collector or manufacturer is recycling eligible electronic devices on behalf of a registered manufacturer.

(b) A registered recycler shall include all of the following information with its registration under s. 287.17 (8) (a), Stats.:

1. The street address of all facilities at which the registered recycler conducts recycling or stores eligible electronic devices or materials derived from eligible electronic devices.

2. A list of the electronic devices banned from disposal under s. 287.07 (5), Stats., that the recycler accepts.

3. A list of applicable third-party certifications that the recycler maintains.

Note: Electronics recycling facilities may become certified by demonstrating to an accredited, independent third-party auditor that they meet specific standards to safely recycle and manage electronic devices. Currently two accredited certification standards exist: the Responsible Recycling ("R2") Standard for Electronics Recyclers and the e-Stewards® Standard for Responsible Recycling and Reuse of Electronic Equipment© ("e-Stewards®").

4. If the facility is located in Wisconsin, the solid waste processing facility operating license number obtained under s. NR 502.08.

(2) REPORTING RECYCLED WEIGHT. (a) In the annual report submitted under s. 287.17 (8) (b), Stats., a registered recycler shall include all of the following:

1. The names of all registered collectors in this state from which the recycler received eligible electronic devices during the preceding program year.

2. The total weight of eligible electronic devices used by households or covered schools in rural counties and used by households or covered schools in urban counties received from each collector. When the source county is unknown, the weight shall be counted in the total for urban counties.

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3. The total weight of eligible electronic devices that the recycler diverted for reuse or refurbishment, rather than recycled, during the preceding program year.

4. The total weight of eligible electronic devices that the recycler put in storage, rather than recycled or sent for disposal, during the preceding program year.

5. The total weight of recyclable material derived from eligible electronic devices that the recycler sent for disposal, rather than recycled, during the preceding program year.

(b) To calculate total recycled weight for the preceding program year, the registered recycler shall subtract the weights reported in par. (a) 3. to 5. from the total weight reported under par. (a) 2.

(3) REPORTING ASSIGNMENTS OF RECYCLED WEIGHT. (a) A registered recycler may assign recycled weight to an authorized broker or registered manufacturer.

(b) On the annual report submitted under s. 287.17 (8) (b), Stats., a registered recycler shall identify the total recycled weight the recycler assigned to authorized brokers or registered manufacturers during the preceding program year, the name of all authorized brokers and registered manufacturers assigned recycled weight, and the recycled weight assigned to each.

(c) A registered recycler shall report separate totals for the recycled weight used in rural and urban counties under par. (b). When the source county is unknown, the recycled weight shall be counted in the total for urban counties.

(d) The total recycled weight reported under sub. (3) (b) may not exceed the total reported under sub. (2) (b).

(4) OWNER FINANCIAL RESPONSIBILITY. (a) To meet the owner financial responsibility requirement under s. 287.17 (8) (c) 3., Stats., a registered recycler shall do all of the following:

1. Submit a copy of the registered recycler's current proof of financial responsibility to the department with its initial registration and upon request by the department.

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2. Provide proof of financial responsibility for all facilities where eligible electronic devices, or materials derived from eligible electronic devices, are stored or recycled.

(b) In addition to meeting the requirements under par. (a), a registered recycler located in Wisconsin shall do all of the following:

1. Submit a closure cost estimate for all facilities listed under sub. (1) (b) 1. on a form required by the department., in accordance with s. NR 520.07.

2. Name the department as beneficiary or obligee and meet the requirements of s. NR 520.06, except the facility may only use one of the financial responsibility mechanisms under s. 287.17 (8) (c) 3. a. to e., Stats.

(c) In addition to meeting the requirements under par. (a), a registered recycler not located in Wisconsin shall do one of the following:

1. Name the department as beneficiary or obligee and meet the applicable requirements of ch. NR 520.

2. Name an independent third party other than the department as beneficiary or obligee and meet all of the following requirements:

a. Provide proof of financial responsibility using one of the mechanisms under s. 287.17 (8) (c) 3. a. to e., Stats. If selecting a performance or forfeiture bond as the means of proof of financial responsibility, the bonds shall be issued by a surety company among those listed as acceptable sureties for federal bonds in Circular 570 of the U.S. department of the treasury.

b. Provide a closure cost estimate that does not count any assets as positive value and is based on the cost of an independent third party managing the facility closure and cleanup.

c. Provide a copy of new or updated proof of financial responsibility within 10 days of its effective date.

d. Notify the department at least 90 days prior to the cancellation date of proof of financial responsibility.

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(5) TRANSPORTATION OF ELECTRONIC DEVICES. (a) A registered recycler shall use a bill of lading for all of the following:

1. Transporting electronic devices and their components from the point of collection or consolidation to the recycler's facility.
2. Transporting electronic devices and their components from the recycler's facility to other recyclers or end users of the material.

(b) Each bill of lading shall include the date the load was picked up from the originating facility and a description of the load, including the type of materials and number of pallets or containers. Each bill of lading shall also include one of the following:

1. The weight of the load, if a scale is available.
2. The estimated weight of the load, if a scale is not available.

(c) Each bill of lading shall be signed by both the shipper and the receiver.

(d) A registered recycler shall maintain bills of lading and other records required under this section for at least 3 years. The department may inspect records that are required under this section.

NR 530.10 Requirements for authorized brokers. (1) MANUFACTURER COOPERATION. This section applies to any authorized broker providing services to a registered manufacturer for the purpose of cooperation under s. 287.17 (2) (b), Stats.

(2) NOTIFICATION. A person, including a registered recycler, wishing to operate as an authorized broker on behalf of one or more registered manufacturers shall notify the department and provide the name, address, and contact information of an individual responsible for ensuring compliance with this section.

(3) ANNUAL WEIGHT TRANSACTION SUMMARY. (a) An authorized broker may transact assignments of recycled weight with registered recyclers, authorized brokers, and registered manufacturers.

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(b) An authorized broker shall submit to the department no later than the first day of the third month of a program year, a report that includes all of the following:

1. The recycled weight assigned by others to the authorized broker during the preceding program year, the names of the persons who assigned the recycled weight, and the recycled weight assigned by each person.

2. The recycled weight the authorized broker assigned to others during the preceding program year, the names of the persons recycled weight was assigned to, and the recycled weight assigned to each person.

(c) For weights reported under par. (b), the authorized broker shall report separate totals for the recycled weight associated with recycling of eligible electronic devices used in rural and urban counties. When the source county is unknown, the weight shall be counted in the total for urban counties.

(d) The total weight reported under par. (b) 2. shall not exceed the total weight reported under par. (b) 1.

NR 530.11 Requirements for retailers. (1) REGISTERED BRANDS. If a retailer determines that a covered electronic device is not listed as registered on the department's internet site, and that s. 287.17 (2) (c) 2., Stats., does not apply, the retailer shall do all of the following:

(a) Remove the covered electronic device from the sales area of its in-person stores located in Wisconsin.

(b) Remove the covered electronic device from its own internet store or block Wisconsin households and schools from purchasing the covered electronic device through its internet store.

Note: The department's internet site listing registered brands of covered electronic devices can be found at <https://dnr.wi.gov/topic/Ecycle/>.

(2) EDUCATION. (a) Under s. 287.17 (9), Stats., a retailer shall provide to purchasers information describing how eligible electronic devices may be collected and recycled and

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provide a description of the prohibitions under s. 287.07 (5) (a), Stats. To meet this requirement, a retailer shall do the following, as applicable:

1. Provide the required information on receipts provided to purchasers of covered electronic devices.
2. For in-person sales, post the required information in a prominent location either in the electronics section of the store or at the register where covered electronic devices are purchased.
3. For sales by telephone, provide the required information over the telephone.
4. For sales by catalog, provide the required information in the catalog.
5. For sales over the internet, maintain a web page that is easily accessible to customers that includes the required information.

(b) A retailer shall provide training to all employees who interact with purchasers of covered electronic devices about the requirement under s. 287.17 (9), Stats.

NR 530.13 Suspension and revocation of collector and recycler registrations. (1)

REASONS FOR SUSPENSION. The department may suspend the registration of a collector under s. 287.17 (7), Stats., for failure to comply with any of the requirements under s. 287.17 (7), Stats. The department may suspend the registration of a recycler under s. 287.17 (8), Stats., for failure to comply with any of the requirements under s. 287.17 (8), Stats.

(2) REASONS FOR REVOCATION. The department may revoke a collector or recycler's registration if the collector or recycler has failed to take action to return to compliance in a timely manner following a suspension.

(3) ELIGIBILITY OF ELECTRONIC DEVICES COLLECTED DURING SUSPENSION OR REVOCATION. Beginning on the effective date of a suspension or revocation and continuing until a collector's registration is reinstated by the department, no eligible electronic device a collector receives from a household or covered school, or delivers to a manufacturer or recycler, may be included in the weight of eligible electronic devices recycled by a registered manufacturer under s. 287.17 (4) (f), Stats.

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(4) ELIGIBILITY OF ELECTRONIC DEVICES RECYCLED DURING SUSPENSION OR REVOCATION. Beginning on the effective date of a suspension or revocation and continuing until a recycler's registration is reinstated by the department, no eligible electronic devices a recycler recycles are eligible to count toward the weight of eligible electronic devices recycled by a registered manufacturer under s. 287.17 (4) (f), Stats.

(5) PROCESS FOR REINSTATEMENT FOLLOWING SUSPENSION OR REVOCATION. (a) After a collector or recycler's registration has been suspended or revoked, the collector or recycler shall do all of the following to be reinstated as a registered collector or recycler:

1. Resolve any outstanding compliance issues related to the suspension or revocation to the satisfaction of the department.

2. Demonstrate to the department full compliance with the requirements under s. 287.17, Stats., and other applicable laws.

(b) The department shall reinstate a collector's registration under s. 287.17 (7), Stats., or a recycler's registration under s. 287.17 (8), Stats., once the collector or recycler has met all requirements under par. (a).

(c) The department shall notify a collector or recycler in writing of its reinstatement and clearly indicate the complete time period for which collected or recycled electronic devices are not eligible to count toward a registered manufacturer's weight recycled.

(d) The department shall notify all authorized brokers and registered collectors, recyclers, and manufacturers of the reinstatement.

NR 530.14 Revocation of manufacturer registrations. (1) REASONS FOR REVOCATION. The department may revoke a manufacturer's registration under s. 287.17 (3), Stats., if the manufacturer has failed to comply with one or more of the requirements under s. 287.17 (2) (a), (3), (4), or (5), Stats.

(2) PROCESS FOR REINSTATEMENT FOLLOWING REVOCATION. (a) A manufacturer shall do all of the following to be reinstated as a registered manufacturer:

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1. Resolve any outstanding compliance issues related to the revocation to the satisfaction of the department.

2. Demonstrate to the department full compliance with the requirements under s. 287.17, Stats., and other applicable laws.

(b) The department shall reinstate a manufacturer's registration under s. 287.17 (3), Stats., once the manufacturer has met all requirements under par. (a).

(c) The department shall notify a manufacturer in writing of its reinstatement.

SECTION 21. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 22. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on [DATE].

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

BY _____

For Preston D. Cole, Secretary