WASTE AND MATERIALS MANAGEMENT PROGRAM
GUIDANCE FOR COMMENT

GUIDANCE DOCUMENT TITLE AND NUMBER

Guidance for Preparing Waste Tire Processing Facility Submittals (WA-1001)

PROGRAM/BUREAU

Waste and Materials Management

GENERAL TOPIC

Tire processing facilities must submit for and receive a Department of Natural Resources (DNR) approval and license to operate a waste processing facility in the state of Wisconsin. Guidance for Preparing Waste Tire Processing Facility Submittals (WA-1001) has been prepared to assist facilities with applying processing facility submittal requirements to waste tire facilities, and to walk through the steps to obtain a DNR approval and processing facility license.

FINAL DATE FOR COMMENTS

April 30, 2026

PUBLIC CONTACT FOR GUIDANCE

Dan Werner, daniel.werner@wisconsin.gov

Guidance for Preparing Waste Tire Processing Facility Submittals

(PUB-WA-1001 2026)

Introduction

Tire processing facilities must submit for and receive a Department of Natural Resources (DNR) approval and license to operate a waste processing facility in the state of Wisconsin. This guidance document has been prepared to assist in applying processing facility submittal requirements to waste tire facilities. This guidance does not replace administrative code requirements in ch. NR 502, Wis. Adm. Code. Contact the regional waste management specialist for more information on completing a submittal.

What is a waste tire?

A waste tire is a tire that is no longer suitable for its original purpose because of wear, damage or defect, or any material that results from the processing of waste tires. This material includes, but is not limited to, shredded tires, products made from tires, loose wire or wire mixed with rubber and fiber from processing. Waste tire does not include a rim removed from the tire.

What needs to be submitted to the DNR for approval?

An applicant seeking a DNR license to operate a tire processing facility must submit the following documents to the DNR as part of its approval and licensing:

- an initial site inspection (ISI)
- a plan of operation
- a license application

Tire processing facilities that have a primary purpose of converting solid waste into usable materials, products or energy, are exempt from review fees for the plan of operation, plan modifications, and from the annual license fee. However, fees for initial site inspections and construction inspections still apply. These fees are outlined in s. NR 520.04, Table 2.

Initial Site Inspection

Before submitting a plan of operation to operate a solid waste processing facility, the applicant must have an ISI conducted. An ISI determines if the proposed physical location of a tire processing site is likely to meet the locational criteria and performance standards required for a solid waste processing facility before a location specific plan of operation is submitted. An ISI can be requested by submitting a Ch. NR 502 Non-Landfill Solid Waste Facility Initial Site Inspection Application (Form 4400-209). The DNR has 44 business days to review an ISI request and issue a response. There is a $550 fee for completing an ISI.

The result of the ISI is a written response from the DNR called a “preliminary opinion.” A preliminary opinion does not prevent or guarantee the plan of operation approval, but it lets an applicant know if the location is likely to be a good fit.

Plan of Operation

Following a favorable ISI determination from the DNR, a plan of operation for a solid waste processing facility can be submitted using the Solid Waste Processing Facility Plan of Operation Application (Form 4400-324). A plan of operation is a report submitted for a solid waste facility that describes its location, design, construction, documentation, monitoring, sanitation, operation, maintenance, closing and long-term care. The DNR must first determine if a plan of operation is complete before it can be approved. A complete submittal must address all the criteria for a plan of operation as laid out in s. NR 502.08(4), Wis. Adm. Code. The list below provides additional details needed by the DNR specific to tire processing operations.

1. Section 5, question 5 of the plan of operation application should include:

    a. a description of the processing operation identifying all products and the movement of waste through the facility.

    b. an estimation of the amount of waste tires processed daily based on the capacity of the processing equipment proposed; the type of processing equipment and the product produced (e.g., tire derived fuel, crumb rubber, etc.) should also be included.

2. Fire preparedness is an important component of operating a tire processing facility. The Department of Safety and Professional Services (DSPS) has authority regarding fire safety at commercial properties. The list below is intended to provide information about the types of planning and procedures required of a tire processing facility. Applicants are encouraged to contact DSPS to ensure the appropriate fire safety protocol is followed as provisions of ch. SPS 314, Wis. Adm. Code, may supersede the guidance included in the following paragraphs (a. – d.):

    a. Inside storage of whole, cut, chipped or shredded waste tires should meet the fire prevention, exposure protection, and firefighting access guidelines contained in National Fire protection Association (NFPA) standards and codes.

    b. Section 5, question 9 of the plan of operation application should include the following information regarding fire safety for outside waste tire storage:

        i. Describe emergency procedures in place identifying actions site personnel need to take in case of fire, including evacuation procedures for site personnel.

        ii. Describe the procedures, materials, and equipment (such as bulldozers, front-end loaders, etc.) to be used to prevent the spread of a fire to surrounding piles of tires, buildings, and property.

        iii. Describe the procedures, materials, and equipment to be used to extinguish a fire.

        iv. Describe actions that would be taken to prevent runoff from the site during and after fire suppression activities.

        v. Describe procedures and protocols that would be used to test and identify contamination of soil and runoff water.

        vi. Describe methods of disposal of contaminated water, soil and debris that will be implemented as the result of a waste tire fire.

        vii. Describe methods/procedures that will be used to eliminate potential ignition sources such as combustibles materials and welding.

viii. Describe safeguards that will be implemented to minimize the hazard of sparks from equipment such as burners, boiler stacks and vehicle exhaust.

c. The fire safety plan should be discussed with the local fire department and any other agency (e.g., DSPS) that may be involved in case of a fire.

d. The fire safety plan should address an annual fire drill, including coordination of the fire drill with the local fire department.

3. Section 5, question 13 of the plan of operation application should describe measures to be taken to ensure that materials entering or leaving the site are not deposited or disposed of on public roads. This description should show how vehicle traffic enters and exits the site and what measures will be taken to minimize spillage, such as the use of tarps or enclosures, or paving portions of the site exiting to public rights-of-way.

4. Section 5, question 16 of the plan of operation application should provide the estimated maximum quantity of waste tires stored at the facility. Include a description of the storage area design, including individual waste tire pile locations and sizes. Open space should be maintained between individual waste tire piles and buildings to provide effective fire breaks. A working inventory of waste tires (equal to or less than three times the actual daily processing rate of the processing equipment) may be closer to the buildings where processing of waste tires occur, **but in no case should waste tires be physically piled against the building proper.** The designated area for processing facilities should be large enough to provide adequate space for waste tire storage piles and maneuvering of firefighting equipment throughout the site, which would be needed in case of a fire.

5. Section 5, question 18 of the plan of operation application should describe how outside waste tire storage areas will be maintained to prevent harboring, feeding and breeding of rodents, insects and other vectors. One or more of the following methods may be used to control vectors:

    a. Waste tires are drained of water and kept dry by storing in a building or trailer, or under cover.

    b. Waste tires are altered (such as removing the sidewalls separated from tread) so as not to retain water. A narrative and diagram should be included to explain the procedure for waste tire alteration.

    c. Waste tires are treated with larvicide and/or adulticide that is appropriate to prevent the breeding of mosquito larvae and pupa. The life of the larvicide and/or adulticide utilized should be considered when determining the frequency of application. An explanation as to how to determine reapplication frequency should be included in the report. A listing of the larvicide/adulticide to be used, application rate (i.e., volume per 1,000 waste tires), and instructions for mixing and application should be included.

    d. Waste tires are processed within four days of stockpiling.

6. Section 5, question 19 of the plan of operation application should include plans for decontaminating the site after closure.

Engineering Plans

Engineering plans must be included in the plan of operation. The plans must show the location of firefighting equipment, telephones, and other features relevant to the operation of the facility. The plans must include a certification by a professional engineer licensed in the state of Wisconsin.

Owner Financial Responsibility

The plan of operation must include an estimate of owner financial responsibility (OFR) associated with the operations on site. OFR must be established in the event that a solid waste facility is not closed properly or abandoned. Provisions of ss. NR 520.05 through 520.13, Wis. Adm. Code, apply to waste tire processing facilities. Detailed information on how to develop an estimate and establish OFR is provided below.

1. Closure cost estimates must include all necessary work to remove waste and materials from intake areas, processing lines, and treated material and byproduct areas. Costs of site closure include equipment and materials, recycling or disposal tipping fees, transportation, labor, supervision, overhead costs, and taxes; decontamination; equipment decommissioning and a 10% contingency. Closure cost estimates must be based on the maximum storage capacity approved for the facility, the estimated price for a one-time site restoration, and should be calculated using market costs for hiring of a third-party contractor to perform the work. If a facility has contracted rates for work elements, those prices may only be used if the contract states that the prices would extend to the DNR for closure of the site and the contract is submitted to the DNR for review as part of the OFR cost estimate.

2. The DNR recommends that the processing facility obtain insurance, a letter of credit or a bond to cover the estimated cost of firefighting and clean-up due to an accidental fire. The estimate should include the cost to reimburse the local fire department for fighting a fire. This would be separate from the DNR owner financial responsibility (OFR).

3. Table 1 (next page) provides additional information on how to develop an adequate OFR estimate.

Additional Resources

More information is available by visiting Waste tires in Wisconsin or going to **dnr.wi.gov** and searching "tires." The DNR recommends setting up a meeting with a regional waste management specialist to address site-specific questions.

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

PUB-WA-1001 2026

Email: DNRWasteMaterials@Wisconsin.gov

Table 1. Closure Costs

Material	Max Tons On-site **A**	Tons/ Semi Load[1] **B**	# of Semi Loads (C=A/B) *Rounded to the whole number* **C**	Hours of Loading and Unloading per Load[2] **D**	Cost of Loading and Unloading per Hour[3] **E**	Hours of Transportation per Load **F**	Cost of Transportation per Hour **G**	Total Cost of Loading, Unloading and Transportation[4] (C*((D*E)+(F*G)) **H**	Tipping Fee per Ton **I**	Total Tipping Fee **J**	OFR (H+J) **K**
Unprocessed, in-process and residual materials											
Containerized materials[5]											
Processed material[7]											
Site de-contamination											

Table 2: Closure Cost Total Estimate

Source	**Cost**
Sum of Column K	
10% Contingency[6]	
Total OFR	

[1] Calculate using a 53' walking floor semi-trailer. Max weight for 53' walking floor semi-trailer is 22.5 tons. If roll-offs or some other mode of transportation is used, please note.
[2] For a baseline estimate you can use 1 hour loading time and 15 minutes unloading time.
[3] Unless a contract that extends to the department is provided, this should be estimated using operating costs provided to the department by third parties.
[4] May honor a contract rate if the contract extends to the department.
[5] Materials in road-worthy containers do not require Loading and Unloading costs.
[6] 10% Contingency authority in NR520.07(2), Wisconsin Administrative Code.
[7] Process materials will include loading and unloading cost but not typically tipping fee.