



# **Review of Northeast States' Tire Regulations**

September 30, 2020

Joint Project of the Northeast Waste Management Officials' Association (NEWMOA) & the Northeast Recycling Council (NERC)

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## Introduction

Waste tires (also known as scrap) are generated at a rate of approximately one tire per person per year.<sup>1</sup> The population of the northeast<sup>2</sup> is approximately 63.1 million people. Therefore, the number of waste tires produced each year in the region is approximately the same number or about 63.1 million. Although today's tires last for more miles than they did in the past, the number of cars on the road is increasing, and the average number of miles driven annually has also been increasing.<sup>3</sup>

A relatively small percentage of the tires received at an automotive recycler can be reused or retreaded. The vast majority of the tires are waste tires and need to be either recycled or disposed of. Recycling is the preferred option. Waste tires can be used as fuel (i.e., tire-derived fuel or TDF) as well as in a variety of civil engineering applications in landfills, highways, playgrounds, horse arenas, and running tracks. Studies show that waste tires generally stay in or near their area of origin due to the high cost of transportation.<sup>4</sup>

The purpose of this review is to inform state officials, policy makers, and others about the current status of state tire regulations in the northeast as a basis for discussions about updates and improvements. The following sections summarize the available information on each of the states' programs. The Appendix provides an overview of northeast states' tire requirements and programs.

<sup>1</sup>https://www.waste360.com/Recycling\_And\_Processing/scrap-tires-201003; https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposal-of-Scrap-Tires; https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf

<sup>2</sup> Northeast region includes the following states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. This review does not include information on Pennsylvania's tire regulations. 2018 U.S. Census - <u>https://www.census.gov/</u>

<sup>&</sup>lt;sup>3</sup> Pre-COVID 19 data <u>https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposal-of-Scrap-Tires</u> <sup>4</sup> <u>https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposal-of-Scrap-Tires</u>

## Source Reduction & Recycling Opportunities

Prolonging the life of tires is important for reducing the number of scrap tires being generated. Purchasing longer tread-life tires, rotating and balancing tires regularly, driving fewer miles, and keeping tires at their recommended air pressure levels are the best ways to prolong tire life. Improved manufacturing techniques have doubled the useful life of tires since 1955, with 40,000-mile tires now commonplace. Reuse of used, but still serviceable tires, and retreading are the other source reduction options. Approximately 30 million to 33 million tires are retreaded yearly in the U.S.

An estimated 730,000 tons of tires are recycled per year, representing about a 19 percent recovery rate. New tires contain no more than 2 percent recycled rubber. Retreads contain 75 percent recycled content.<sup>5</sup> Some of the ways scrap tires are used include:

- Burning as a tire-derived fuel in cement kilns or electric power plants
- Retreading, which usually works best for truck tires
- Shipping to firms that process them to produce crumb rubber or chips

Tires have good properties for various engineering applications. Uses of crumb rubber include<sup>6</sup>:

- Road building material, chiefly as an additive or supplement to asphalt
- Paving material to occupy the space between and around railroad tracks
- Rubber matting for playground surfaces and as surfacing for equestrian arenas

Civil engineering uses of tire chips include:

- Lightweight fill to support road base material and as fill behind retaining walls
- Drainage materials in landfills and leachate systems in septic systems design

In addition, whole tires are often used as swings and planters or as tarp weights. There also are techniques for using whole tires to build engineered retaining walls.

NERC and NEWMOA published a paper, "End Markets for Used Tires in the Northeast"<sup>7</sup> in October 2019 that summarizes available information on tire outlets in the region. It covers the companies that collect tires and those that process waste tires into TDF or crumb rubber and indicates their service area. Information on processing capacity or final destinations is not available and therefore not covered in the write-up.

## **Waste Tire Generation Facts**

- 3.9 million tons of waste tires are generated per year in the U.S. or 1.9 percent of MSW by weight
- The average weight of a passenger car tire is 20 pounds
- A truck tire weighs 40 pounds or more
- A steel-belted radial passenger tire has 2.5 pounds of steel

Source:

https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposalof-Scrap-Tires.

<sup>&</sup>lt;sup>5</sup> <u>https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposal-of-Scrap-Tires</u>

<sup>&</sup>lt;sup>6</sup> <u>https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Recycling-and-Disposal-of-Scrap-Tires;</u>

https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf; and https://dec.vermont.gov/content/tires <sup>7</sup> www.newmoa.org/publications/Northeast End Markets Tire Waste Paper.pdf and

https://nerc.org/documents/Northeast%20End-Markets%20for%20Tires%20-%20October%202019.pdf

## Waste Tire Piles

Handling and transporting waste tires can be costly, even if the receiver takes them for free. Some automotive recyclers or others have collected large quantities of tires, which they sometimes stockpile believing that they will one day find a lucrative market for them. The number of waste tires stockpiled in this country, plus the number being generated each year, exceeds the recycling market demand.<sup>8</sup>

Typically, scrap tire dump sites are situated on private property and contain anywhere from 20,000 to 1,000,000 tires.<sup>9</sup> Scrap tire stockpiles, as well as those abandoned in parks and along roadways, waterways, and in vacant lots, pose serious safety, and environmental and public health threats. They also spoil the aesthetic beauty of the surrounding area.

Although tire fires are difficult to start, once ignited, they are difficult to extinguish. The black clouds of acrid smoke from a scrap tire fire can be seen for miles, and the fires often burn for days, weeks, or longer. Oftentimes, nearby residents must be evacuated.<sup>10</sup> Fumes from burning tires can affect residents and firefighters in a variety of short- and long-term ways, ranging from irritation of the skin, eyes, and mucous membranes; central nervous system effects; depression; respiratory effects; and cancer.<sup>11</sup>

In addition to creating air pollution, fire melts the rubber in tires and generates oil (called "pyrolytic oil") that can pollute soil, groundwater, and surface water. Concentrations of metals (such as iron, zinc, tin, and aluminum) in the ash residue may be high and can contaminate soil and surface and ground water.<sup>12</sup> Therefore, these residues are often classified as hazardous wastes. In addition to these environmental hazards, scrap tire fires cost hundreds of thousands of dollars to fight and extinguish. The additional cost of cleaning up a tire fire site and mitigating any hazardous waste can escalate to millions of dollars.

Abandoned scrap tires are perfect breeding grounds for mosquitoes because rainwater accumulates in the tires, creating small stagnant pools needed for mosquito breeding. These insects can transmit illnesses, including West Nile Virus and Encephalitis. Scrap tire stockpiles are also prime habitats for disease carrying rodents.

In summary, while only a small percentage of the total solid waste stream, scrap tires can pose a significant environmental problem.

## Landfill or Incineration

About 3.2 million tons of waste tires are disposed of in the U.S. per year. Landfilling of tires is the least preferred waste management option.<sup>13</sup> 40 states do not allow whole scrap tires to be disposed of, and 12 states restrict shredded tires from landfill disposal.<sup>14</sup>

Whole tires do not compress well in landfills and can trap methane gas, causing them to, eventually "float" to the surface, disrupting the landfill as they move. Once they resurface, landfilled scrap tires can create the same public health problems as abandoned tires. Some states that ban the landfilling of whole tires, do allow them to

<sup>&</sup>lt;sup>8</sup> <u>https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf</u>

<sup>&</sup>lt;sup>9</sup> https://www.nj.gov/dep/dshw/recycling/swmp/pdf/section\_e\_06.pdf

<sup>&</sup>lt;sup>10</sup> https://www.nj.gov/dep/dshw/recycling/swmp/pdf/section\_e\_06.pdf

<sup>&</sup>lt;sup>11</sup> <u>https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf</u>

<sup>&</sup>lt;sup>12</sup> <u>https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf</u>

<sup>&</sup>lt;sup>13</sup> https://www.des.nh.gov/organization/commissioner/pip/factsheets/sw/documents/sw-22.pdf

<sup>&</sup>lt;sup>14</sup> https://www.ustires.org/system/files/USTMA\_scraptire\_summ\_2017\_072018.pdf

be disposed of if they are cut up or shredded. Shredding reduces the volume of tires, eliminates the compaction and floating problems at landfills, and eliminates mosquito-breeding locations.

## State Tire Regulations in the Northeast U.S.

Connecticut Delaware Maine Maryland Massachusetts New Hampshire New Jersey New York State Rhode Island Vermont

A detailed summary, organized by state, follows in the Appendix.

#### Connecticut

Connecticut law defines tires as a "special waste" as opposed to municipal solid waste (MSW) and requires special handling. Connecticut does not permit the landfilling of waste tires, either whole or in pieces.

The Connecticut Department of Energy and Environmental Protection (CT DEEP) Solid Waste Management Regulations specify the handling requirements for the storage, disposal or processing (i.e., sort, shred, grind, etc.) of waste tires.

DEEP requires that facilities that process tires to report quarterly on the origin and amounts of the received, and the amounts recycled and disposed, along with the destination of all materials leaving their facility.

Source: <u>Recycling and Disposal of Scrap Tires</u> (<u>https://www.ct.gov/deep/cwp/view.asp?A=2714&Q=324902</u>)</u>

### Delaware

Delaware requires that any person or business engaged in selling tires at retail to:

- Obtain a Retail Tire Business License for each location at which tires are sold
- Charge a \$2 Scrap Tire Fee for each tire sold and remit it to the State

Exceptions include:

- Tires sold for farm tractors and off-highway vehicles (i.e., dirt bikes, off-road all-terrain vehicles or ATVs)
- Tires sold as part of a vehicle sale
- Wholesale tire sale

The Delaware Natural Resources and Environmental Control's (DNREC) Scrap Tire Management Program has two components. The first is the Scrap Tire Facility Compliance Program, which is responsible for ensuring compliance with scrap tire facility regulations. The second is the Scrap Tire Removal Program, which registers scrap tire piles and implements a cleanup program for scrap tire piles that number more than 100 tires and were in existence before June 30, 2006.

DNREC's <u>Compliance and Permitting Section (CAPS)</u> regulates Delaware scrap tire facilities. Scrap tire facility regulations can be found in Section 12 of Delaware's <u>Regulations Governing Solid Waste</u> (DRGSW).

The regulations focus on ensuring that scrap tire facilities:

- Limit the number of scrap tires stored at a facility
- Limit the length of time scrap tires are stored at a facility
- Implement appropriate mosquito control for outdoor scrap tire piles
- Have basic standards for managing scrap tire piles

Scrap tire facilities with an outdoor pile need to obtain a permit that includes a site-specific operations manual. Scrap tire facilities utilizing enclosed trailer storage must have a site identification number. A site-specific operations manual for trailers needs to be completed and maintained at a facility but does not need to be submitted with the site notification form.

Guidance documents are available from DNREC to provide assistance with some of the requirements necessary to maintain site compliance. These include:

- <u>Scrap Tire Facility Monthly Inspection Log Sheet</u>
- <u>Scrap Tire Facility Percentage of Turnover: Guidance Document</u>

Source: Scrap Tire Management Program

(https://dnrec.alpha.delaware.gov/waste-hazardous/management/scrap-tires/).

Additional information:

- <u>Fact Sheet: Scrap Tire Facilities: Open Pile Storage</u> (<u>http://www.dnrec.delaware.gov/dwhs/SHWMB/Documents/Scrap%20Tire%20Docs/Fact-Sheet-Open-Pile-Storage.pdf</u>).
- Fact Sheet: Scrap Tire Facilities: Enclosed Trailer Storage (http://www.dnrec.delaware.gov/dwhs/SHWMB/Documents/Scrap%20Tire%20Docs/Fact-Sheet-Enclosed-Trailer-Storage.pdf).

### Maine

Scrap tires are regulated as a solid waste in Maine, under the provisions of Maine's Solid Waste Management Rules. These Rules specify requirements for collecting, storing, transferring, processing, beneficially using and landfilling tires. A solid waste management facility permit is

required in most instances. All activities involving the collection, storage, and/or transfer of scrap tires must meet certain standards.

Sites that store waste tires must meet applicable siting and operating requirements of the State's solid waste rules. A license is required to site, construct, or operate any new waste tire storage site, other than at licensed transfer stations. There are a number of exemptions to these requirements:

- Temporary collection centers for storage for a maximum of 30 days of tires as part of an annual or semiannual municipally-authorized collection program
- Accumulations of less than 1,000 tires utilized in agricultural activities or as weights at landfills
- The household storage or use of no more than 50 tires
- Accumulations of tires at governmental agencies, retail tire dealers, tire retreaders, or other commercial businesses, which remove or accept tires from motor vehicles, provided that no more than 1,000 tires are stockpiled at any time and provided tires removed from the site are removed by a licensed non-hazardous waste transporter

- Accumulations of TDF, when it has a reliable market destination and provided the total volume for TDF storage will be less than 5,000 square feet, and no more than 6 feet high
- The storage of solid waste at the site of a Maine Department of Environmental Protection (ME DEP)supervised remediation project, including tire remediation sites
- Temporary storage for a maximum of 90 days of tire chips stored at Maine Department of Transportation or Maine Turnpike Authority-controlled construction sites where the material is to be used

In most instances, a solid waste management permit is required for facilities that process tires. There are several exemptions from the licensing requirement related to certain mobile processing units and the processing of tires at a facility that both generated and will reuse them.

Maine requires a beneficial use license for such activities as the use of tire chips for lightweight fill or for fuel substitution at an industrial boiler. There are several exemptions from the beneficial use licensing requirement, including:

- The beneficial use of no more than 1,000 whole tires in a recreation area open for use by the public
- The beneficial use of no more than 1,000 whole tires at a farm or a landfill as weights
- The beneficial use of no more than a total of 50 whole tires, each with a maximum rim size of 25 inches in diameter

Maine requires licensing of transporters of scrap tires, and compliance with manifest requirements.

Source: https://www.maine.gov/dep/waste/rules/index.html.

### Maryland

According to the Code of Maryland Regulations "scrap tire" means any tire or part of it that no longer is suitable for its original intended purpose by virtue of wear, damage, or defect, excluding scrap tire parts<sup>15</sup> for which there is a written agreement for the purchase or acceptance of the material only when, at the discretion of the Maryland Department of the Environment (MDE), the exclusion is specifically given by the Department in writing.

In 1991, the Maryland General Assembly adopted the Scrap Tire Recycling Act, in response to Maryland's growing scrap tire problems. The law established a mechanism for the cleanup of scrap tire stockpiles and for the collection, transportation, and recycling or processing of the scrap tires that are generated in Maryland. Three State agencies, MDE, Maryland Environmental Service (MES)<sup>16</sup>, and the Comptroller of the Treasury were designated to implement the Scrap Tire Program. Their primary responsibilities are to:

- Regulate Maryland businesses that collect, haul, store, recycle, process, and handle scrap tires
- Regulate the cleanup of illegal scrap tire stockpiles
- Issue approvals for substitute fuel/TDF and solid waste acceptance facilities
- Perform compliance and enforcement activities to reduce and eliminate hazards associated with scrap tire stockpiling and management
- Develop and establish on-going systems to accommodate scrap tires, which are both environmentally and economically sound
- Provide the public with the information necessary to properly manage scrap tires in ways that protect and enhance Maryland's environment

<sup>&</sup>lt;sup>15</sup> Scrap tire parts means pieces of scrap tires (i.e. shreds or cut tires). If a facility shreds tires and has a contract for purchase or acceptance, the shreds are a product. If they shred the tires (i.e., to reduce volume) but do not have an outlet for them, they are still scrap tires. They don't transform into "not a scrap tire" just because someone shreds them. <sup>16</sup> <u>https://menv.com/about/</u>

• Clean up existing illegal scrap tire stockpiles

MES is responsible for establishing a statewide scrap tire recycling system. The law requires MES to establish adequate scrap tire recycling capacity to meet the State's scrap tire management needs, including stockpile elimination and annual generation of scrap tires.

The Comptroller of the Treasury collects and administers a tire recycling fee from tire dealerships and then forwards all fees to the Department's Used Tire Cleanup and Recycling Fund (Fund), less the costs of administration. The Scrap Tire Recycling Act established the Fund as the funding support for the Scrap Tire Program. The Fund is generated from the collection of a \$0.80 per tire fee on the first sale of each new tire in the State.

The funds generated from the fee are being used to:

- Administer the scrap tire program
- License businesses and haulers
- Enforce and ensure compliance of scrap tire laws and regulations
- Clean up scrap tire stockpiles (Maryland law requires the MDE to seek cost recovery from property owners)
- Develop and distribute information regarding scrap tire issues
- Implement and oversee projects that will reduce, recover, and recycle scrap tires

Source: <u>Scrap Tire Program Overview</u> (<u>https://mde.maryland.gov/programs/LAND/RecyclingandOperationsprogram/Pages/scraptireprogram.aspx</u>).

## Massachusetts

A pile of whole or shredded tires in Massachusetts is considered to be a "dumping ground" and requires a site assignment from the local Board of Health, and a permit from the Massachusetts Department of Environmental Protection (MassDEP). Tires that are chipped or shredded can be used for a variety of other purposes when approved by MassDEP. To avoid creating a pile of waste tires that MassDEP could consider to be a "dumping ground," handlers must demonstrate that at least 75 percent of the tires that are accumulated are recycled or reused in each calendar year and are properly managed. MassDEP bans the disposal of whole tires in landfills.

Source: <u>https://www.mass.gov/files/documents/2016/08/ty/tiremgt.pdf</u> and <u>https://www.mass.gov/guides/massdep-waste-disposal-bans</u> to learn more about Massachusetts waste bans.

Businesses that recycle tires are regulated either under 310 CMR 16.03(2)(b)6, or if these requirements are not met, either 310 CMR 16.04 or 16.05.

Source: https://www.mass.gov/doc/310-cmr-1600-site-assignment-for-solid-waste-facilities/download.

## New Hampshire

Scrap tires are regulated as a solid waste in New Hampshire, under the provisions of the New Hampshire Solid Waste Rules, Env-Sw 100 et seq. (Rules), administered by the NH Department of Environmental Services (NH DES). The Rules specify requirements for collecting, storing, transferring, processing, treating, and landfilling tires (see Env-Sw 905). A solid waste management facility permit is required in most instances, except tires can be stored at the site of generation under the provision of a permit-exemption, provided they are actively managed and stored in a manner protective of the environment, health, and safety (see Env-Sw 408.03). All activities involving the collection, storage, and/or transfer of scrap tires must meet certain standards.

Tires may be collected and stored in outdoor transfer containers, covered trailers, or on the ground. A solid waste facility permit is required to collect scrap tires generated off-site. No permit is required to actively collect, store, and transfer source separated tires that pass inspection in NH and may be legally re-used as tires, i.e., these are not classified as scrap tires and are not regulated as a solid waste provided they are destined for reuse. A permit is required, however, to collect mixed loads of usable and non-usable tires where the usable tires are then sorted out.

The Rules specify the allowable size and configuration of legal waste tire stockpile or storage facilities, including requirements for stockpiles to be surrounded by fire lanes and berms to contain pyrolytic oils or other liquids associated with firefighting. Further, the storage facility must have equipment, cover material and other supplies, including water, sufficient to control a fire until the nearest fire company capable of extinguishing the fire arrives. Whether stored indoors or outdoors, precautions must be taken to prohibit the establishment of a habitat for breeding mosquitos.

Operators of storage facilities must limit the size of tire piles and actively manage them. A best practice for municipal transfer stations and others is to ship tires off-site as soon as they accumulate a full load (approximately 1,000 to 1,500 tires).<sup>17</sup> The rules demonstrate a preference for collecting tires in a trailer to keep them dry and ready for prompt shipping without additional handling. If tires must be stored outside, DES recommends that they be covered with plastic to help minimize the collection of water. Alternatively, drain holes can be drilled into the tires to prevent accumulation of stagnating water.

Processing tires, such as by chipping or shredding, must be done in a manner that limits noise, odor, and fugitive dust emissions to the greatest extent practicable. In most instances, as noted above, a solid waste management permit is required for facilities that process tires.

All waste-derived products produced by processing or treating tires must be certified under the Solid Waste Rules prior to distribution and use. Certain tire-derived products and uses meeting nationally recognized standards are "automatically" certified by rule. For example, ASTM D 6270-98 "Standard Practices for Use of Scrap Tires in Civil Engineering Applications" describes several uses of scrap tires in construction projects. These uses include tire shreds as lightweight embankment fill, lightweight retaining wall backfill, drainage layers, thermal insulation to limit frost penetration beneath roads, insulating backfill around building foundations, and retaining walls made from whole tires. These uses are allowed in New Hampshire if they serve an engineering function and are designed and built under the supervision of a New Hampshire licensed professional engineer. Use of tires as general fill is not allowed in NH. Other uses not certified by rule, can become certified by filing an application for certification and demonstrating in the application that certain criteria are met.

Treatment of tires must meet the same standards that apply to processing. If the treatment method is by incineration, additional requirements apply. At properly equipped and permitted waste-to-energy facilities, scrap tire chips can be burned to create energy and provide an alternative to landfilling. The open burning of tires is prohibited. In all cases, a processing or treatment facility must properly account for and manage all bypass and residual waste, including ash, generated by the treatment process.

Landfilling is the least preferred option for managing scrap tires in New Hampshire. However, when landfilling, tires must first be quartered, split, or shredded to reduce the potential for tires to resurface. Landfilling may only occur at authorized facilities.

<sup>&</sup>lt;sup>17</sup> <u>https://www.des.nh.gov/organization/divisions/waste/swmb/documents/bmp-tires.pdf</u>

Towns are authorized to collect an additional fee at the time of motor vehicle registration to offset the cost of disposing of automobile wastes (i.e., scrap tires, used oil, and motor vehicle batteries) at municipally-owned solid waste management facilities.

Source: https://www.des.nh.gov/organization/commissioner/pip/factsheets/sw/documents/sw-22.pdf.

#### New Jersey

Pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et. seq., and the solid waste (N.J.A.C. 7:26) and recycling regulations (N.J.A.C. 7:26A) promulgated thereunder, scrap tire management is regulated in New Jersey by the New Jersey Department of Environmental Protection's (NJDEP) Division of Waste, Pesticides, and Release Prevention via the Bureau of Solid Waste Compliance and Enforcement. NJDEP's Bureau of Solid Waste Compliance and Enforcement manages the "Statewide Tire Project," which addresses inspections, compliance assistance, and enforcement at illegal tire dumps, exempt scrap tire facilities, and Class B Approvals at facilities that receive scrap tires. The County environmental programs also assist NJDEP with inspections of scrap tires related to investigating citizens' compliants, as well as inspections of exempt scrap tire recycling facilities.

Recently, NJDEP created the Office of Environmental Justice (EJ). EJ is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. NJDEP is focused on communities within the State that may be experiencing environmental injustices and has made them a priority within its many program areas. For example, in the case of illegal scrap tire piles in EJ areas, a priority has been placed on locating and taking enforcement to compel the cleanup of the scrap tires.<sup>18</sup>

Unless a county specifically mandates that tires be recycled, scrap tires may still be legally disposed of as solid waste in NJ. Of course, recycling and innovative civil engineering reuse applications are always preferred and encouraged by NJDEP over disposal.

When destined for *disposal*, a scrap tire is classified as a Type 13 Bulky solid waste and requires transport by a NJDEP licensed solid waste transporter and disposal at a NJDEP (or another state's) permitted solid waste transfer or disposal facility. If a scrap tire is destined for recycling, it is classified as a Class B recyclable material and is required to be delivered to a NJDEP (or another state's) permitted Class B Recycling Facility or a NJDEP authorized Exempt Scrap Tire Recycling Facility. Currently, NJ does not require licensing or permitts for strictly transporting recyclable materials and, therefore, if the transporter is strictly transporting scrap tires to an authorized recycling end market facility, they do not need to be NJDEP licensed solid waste transporters.

There are two categories of NJDEP "authorizations" required for facilities that generate their own and/or receive scrap tires:

EXEMPT: Pursuant to NJAC 7:26A-1.4(a)5, a scrap tire recycling facility is "exempt" from obtaining a Class B Recycling Approval (permit) if they:

- 1) Receive and/or generate <u>no more than</u> 5,000 scrap tires per month and <u>no</u> processing is performed (i.e., baling, chipping, shredding, etc.)
- 2) Submit an Exempt Recycling Activity Notification Form to the NJDEP so that they are on record that an exempt scrap tire activity is being performed on their property

<sup>&</sup>lt;sup>18</sup> <u>https://nj.gov/dep/ej/</u>

- 3) Store all scrap tires in a totally enclosed container, store no more than 5,000 on-site at any one time, and store them for no more than 6 months
- 4) Send the scrap tires to an end market that is authorized by NJDEP or another state for either disposal or recycling of scrap tires
- 5) Prevent mosquito infestation and have written approval of their fire control measures from the local fire department

CLASS B APPROVAL: Pursuant to 7:26A-3.1, a Class B Approval is required when a facility receives and/or generates and stores scrap tires in excess of the above described exempt limits or they wish to process scrap tires by shredding, slicing, baling, etc. A Class B Approval's incoming quantity limits, storage locations and sizes, and types of processing activities varies widely depending on the size of the facility and what is requested by the applicant and ultimately approved by the NJDEP during the Class B Approval application process, which is administered by NJDEP's Bureau of Recycling and Hazardous Waste Permitting.

Sources:

- NJDEP's website: <u>https://www.state.nj.us/dep/</u>
- N.J.A.C. 7:26A: https://www.nj.gov/dep/dshw/resource/CURRENT/WEB%20PDFS/26A.pdf
- N.J.A.C. 7:26: https://www.nj.gov/dep/dshw/resource/CURRENT/WEB%20PDFS/26%20CHAPTER%202.pdf

## New York State

The New York State Department of Environmental Conservation (NYSDEC) regulates the management of waste tires. The <u>ECL Article 27. Title 19. Waste Tire Management and Recycling Act (PDF 25 KB)</u> was enacted to ensure the proper management of waste tires in New York State and includes the following:

- Establishment of the Waste Tire Management and Recycling Fund and enactment of a waste tire management and recycling fee of \$2.50 per new tire sold, including tires on new motor vehicles; tire service centers must collect the fee from the purchaser at the time of the sale and remit such fee to the Department of Taxation and Finance
- Prescription that no monies from the waste tire management and recycling fund can be used to dispose of waste tires in a landfill unless NYSDEC has determined that it is not feasible to convert the waste tires to a beneficial use

In November 2017, NYSDEC overhauled its Solid Waste Management Facilities Regulations and introduced several new pre-determined beneficial uses for tire-derived aggregate, wire-free mulch and other tire uses. Tires as fuel or in landfills are still allowed though not under beneficial use determinations. Tire storage facility regulations have changed to tighten some conditions for registration (in lieu of permitting) and to clarify operating requirements.

Source: Waste Tires - https://www.dec.ny.gov/chemical/8792.html.

## **Rhode Island**

The Rhode Island Department of Environmental Management (RI DEM) regulates waste tire storage and recycling facilities under 250-RICR-140-05-5. Facilities seeking to store and recycle waste tires must apply to RI DEM for a license to construct and operate a Waste Tire Storage and Recycling Facility, including a site plan and construction and engineering plans and specifications relating to all buildings and equipment of the facility to RI DEM. Applications must also include an operating plan, contingency plan, and a closure plan. The duration of the operating plan is the same as the license. For license renewals, the facility must review its operating plan and make any needed changes prior to submission to RI DEM.

RI DEM's rules specify waste tire storage and recycling facility operating standards that facilities must meet. Storage of waste tires must meet a set of requirements that detail the height of waste tire piles, distance between piles and the property line, the quantity of tires that can be stored onsite, the storage time period, the condition of the tires, tire processing specifications, fire prevention and control measures, vector control measures, and security measures.

Source: https://rules.sos.ri.gov/regulations/part/250-140-05-5.

## Vermont

Scrap tires are considered a solid waste; therefore, all rules and laws governing solid wastes also pertain to scrap tires. It is illegal in Vermont to landfill whole tires or to collect, transport, stockpile, or process scrap tires without the necessary certification or license. Furthermore, scrap tires may not be burned as fuel without a permit issued by the Vermont Department of Environmental Conservation (VT DEC). Any entity that generates scrap tires must hire a licensed tire hauler to remove their tires.

Vermont also licenses salvage yards, and licensed salvage yards must limit scrap tires to a specific maximum quantity based on the number of vehicles in the yard.

Vermont does not have a formal scrap tire management program. The State collects no fees dedicated to market development or illegal tire disposal remediation. In 2013, The DEC conducted a survey of illegal scrap tire piles and determined that there were 62 tire piles containing an estimate 417,000-458,000 tires. Very few of these tire piles have been remediated, and likely the number of illegally stockpiled tires has increased since then.

Vermont has one permitted, but not currently operating tire recycler. Therefore, 100 percent of legitimately managed tires are shipped out of state. A precise account of what becomes of Vermont's collected scrap tires is infeasible, as the receiving out-of-state processors are free to determine the most profitable market. It appears, however, that the percentage of Vermont tires processed and utilized as TDF is higher than the national average and may approach two thirds of the scrap tires generated in-state. Regional facilities that burn tires for fuel include cement kilns in Quebec and New York, and paper mills in Maine. Civil engineering projects utilizing shredded tires are increasing nationwide, and Vermont DEC and VTrans are researching Tire Derived Aggregate uses. Some smaller percentage of Vermont tires are likely processed for use as ground rubber, particularly as landscaping media, but one of the major uses, as a component of rubberized asphalt, is not commonplace in New England.

#### Sources:

- <u>https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/TIRE%20RECYCLERS%20WORKIN</u> <u>G%20IN%20VERMONT.pdf.</u>
- https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/SWRule.final\_.pdf.
- https://dec.vermont.gov/sites/dec/files/documents/SalvageYardRuleFinalAdopted-09-01-2015.pdf.
- <u>https://dec.vermont.gov/sites/dec/files/ead/documents/Guidebooks/VehicleServiceGuide.pdf.</u>

## Additional Resources

- Retread Tire Buyers Guide available online at <u>www.retread.org.</u>
- <u>U.S. Tire Manufacturers Association</u>, Washington, DC.
- Society of Automotive Engineers, Inc.
- U.S. EPA: <u>https://www.epa.gov/chemical-research/tire-crumb-questions-and-answers</u>
- <u>DEC Crumb-Rubber Study</u>.
- <u>Crumb-Rubber Fact Sheet</u> Crumb-Rubber Infilled Synthetic Turf Field Study Fact Sheet.
- Status of Abatement Work at Waste Tire Facilities (as of May 2014).

## **Acknowledgments & Disclaimer**

#### About NEWMOA

The Northeast Waste Management Officials' Association (NEWMOA) is a non-profit, non-partisan, interstate association whose membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

NEWMOA' mission is to provide a strategic forum for effectively solving environmental problems through collaborative regional initiatives that:

- Advance pollution prevention and sustainability
- Promote safer alternatives to toxic materials in products
- Identify and assess emerging contaminants
- Facilitate adaption to climate change and mitigate greenhouse gas sources
- Promote reuse and recycling of wastes and diversion of organics
- Support proper management of hazardous and solid wastes
- Facilitate clean-up of contaminant releases to the environment

For more information, visit www.newmoa.org.

#### About NERC

The Northeast Recycling Council (NERC) is a multi-state non-profit organization whose programs emphasize source reduction, reuse, recycling, composting, environmentally preferable purchasing (EPP), and decreasing the toxicity of the solid waste stream in the 11-state region comprised of Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Maryland, Pennsylvania, Rhode Island, and Vermont. Its *mission* is to minimize waste, conserve natural resources, and advance a sustainable economy through facilitated collaboration and action. For more information, visit <u>https://nerc.org/</u>.

#### Contributors/Acknowledgements

Terri Goldberg, NEWMOA Executive Director and Lynn Rubinstein, NERC Executive Director prepared this paper. NERC and NEWMOA gratefully acknowledge the contributions of Tom Metzner, CT DEEP; Adam Schlachter, DNREC; Paula Clark, ME DEP; David Mrgich, MDE; John Fischer, MassDEP; Pam Hoyt-Denison, NH DES; Carole Mercer, NJDEP; Kathleen Prather, NYSDEC; Mark Dennen, RIDEM; James Surwilo, VT DEC.

#### Disclaimer

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Appendix

**Summary of Northeast State Tire Regulations** 

## September 30, 2020

**Connecticut** 

**Delaware** 

<u>Maine</u>

**Maryland** 

**Massachusetts** 

New Hampshire

New Jersey

<u>New York</u>

**Rhode Island** 

<u>Vermont</u>

## Connecticut

State Agency	Legislation & Regulations	Funding Sources/Fees	Collector, Seller & Hauler Regulations
Connecticut Department of Energy & Environmental Protection (CT DEEP) Waste Engineering & Enforcement Division, Bur. of Materials Man. & Compliance Assurance Telephone: 860-424-3206 Website: <u>https://portal.ct.gov/DEEP/Reduce- Reuse-Recycle/Recycling-and-Disposal-of-Scrap- Tires</u>	<ul> <li>Guidelines for Rubber Tire Storage Areas (1978-80).</li> <li>Tires are managed as a special waste under the Connecticut General Statutes, which became effective February 1985.</li> <li>The State Mandatory Recycling Act designates tires as future recyclables.</li> </ul>	General funds for administrative costs.	Any tire handler must comply with the regulations set out in the Connecticut General Statutes.
Storage & Processor Regulations	Disposal Restrictions	Financial/Market Incentives	Approved / Allowed Uses
Tire storage facilities must be licensed by DEEP. Requirements include groundwater protection, environmental, health & safety provisions, & financial assurance.	Tires may be accepted at landfills until there are sufficient facilities with tire recycling capabilities in the State.	State has a 10% price preference for products made from recycled materials.	

### Delaware

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
Delaware Department of Natural Resources & Environmental Control (DNREC) Division of Waste & Hazardous Substances Compliance & Permitting Section	<ul> <li>Scrap tires are regulated under Section 12 of Delaware's Regulations Governing Solid Waste (7 DE Admin. Code 1301) Source: <u>https://regulations.delaware.gov/AdminCod</u> <u>e/title7/1000/1300/1301.shtml</u></li> <li>New Regulation (1997) prohibits outdoor storage of tires without first obtaining a permit from the State Fire Marshal's office. (See Delaware State Fire Prevention</li> </ul>	Any person or business engaged in selling tires in Delaware must get a license from the Division of Revenue & pay a Scrap Tire Fee. A \$2 Scrap Tire Fee is charged for each tire sold at retail & remitted to the State of Delaware. The Scrap Tire	Scrap tire transporters are required to obtain a Solid Waste Transporter permit. A permit application & \$75 (\$50 permit fee & \$25 public notice fee) annual fee are required to
Telephone: 302-739-9403 Website: <u>https://de.gov/ScrapTires</u>	Regulations, Part VI, Chapter 5.)	Fee is used to fund the Scrap Tire Management Fund & is used to clean up existing scrap tire piles statewide.	obtain a permit.
Storage & Processor Regulations	Disposal Restrictions	Financial/Market Incentives	Approved / Allowed Uses
<ul> <li>A Resource Recovery permit may be recovered depending on the activity.</li> <li>Permit must be obtained</li> </ul>	• The State's three sanitary landfills are permitted to accept tires for landfilling provided that the tires are shredded or split. Whole tires in excess of 10 per truckload are prohibited from being landfilled.	The State's Green Industries Initiative provides tax incentives &/or low interest loans to business & industry to	
from State Fire Marshal for outdoor storage.	<ul> <li>The State's single industrial landfill accepts tires that have been taken off the rims &amp; cut for disposal.</li> <li>The landfills have implemented a tipping fee of \$240 per ton for more than 4 whole tires, which they divert to a tire-to-energy facility. Shredded &amp; sliced tires are accepted at the regular tipping fee of \$85 per ton.</li> </ul>	use recycled materials in manufacturing or to process recyclables. To date, two loans have been given out under this program, including one to a crumb rubber operation.	

## Maine

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
Maine Department of Environmental Protection (ME DEP) Bureau of Remediation & Waste Management Telephone: 207-287- 7688 Website: https://www.maine.gov/ dep	<ul> <li>38 M.R.S. §§ 1316 - 1316-G (Tire Stockpile Abatement Law; 1991) provides authority to: investigate uncontrolled tire stockpiles, issue administrative orders, require responsible parties to clean up sites, establish &amp; administer the Tire Management Fund, abate sites &amp; remove tires, recover costs, &amp; establish liens.</li> <li>38 M.R.S. §§ 1316-L &amp; M (Management of Motor Vehicle Tires) establishes: a licensing requirement for tire storage, disposal &amp; processing facilities; transporter &amp; manifest requirements; &amp; penalties for non- compliance.</li> <li>Maine Solid Waste Management Rules (06-096 C.M.R. Chapters 400- 411, &amp; 418) establish standards for the siting &amp; operation of all types of solid waste facilities, including those handling tires &amp; establish beneficial use &amp; transporter licensing requirements. Source:</li> </ul>	A \$1/tire fee is charged on the retail sale of tires. Revenues are credited to the Maine Solid Waste Management Fund (MSWMF) where they have been expended for a variety of purposes, including tire abatement projects. Maine's successful Tire Stockpile Abatement Program was funded through bonds & the MSWMF.	Scrap tire collectors, sellers & haulers are subject to applicable provisions of the Maine Solid Waste Management Rules, in particular, those pertaining to storage & transportation. 38 M.R.S. § 1316-L (2) specifically provides that a person may not transfer custody or possession of scrap tires to any transporter if that person knows or has reason to believe the transporter: • Does not have a license or permit to transport scrap tires as required by Department rules • Does not have a manifest documenting transport of such tires as required by Department rules • Will transport or handle the scrap tires in violation of the law or rules.
Storage & Processor	https://www.maine.gov/dep/waste/ rules/index.html	Financial/Market	
Regulations	Disposal Restrictions	Incentives	Approved / Allowed Uses
<ul> <li>Permit required if tire storage area &gt; 10,000 square feet.</li> <li>Permit requirements decrease for storage areas less than 10,000 square feet. Exemptions are possible for short-term storage &amp; for temporary use of portable tire shredders.</li> <li>All scrap tire storage facilities are covered under State solid waste processing &amp; disposal regulations &amp; have the same siting restrictions.</li> <li>Permit required for scrap tire processing facilities.</li> </ul>	No whole tires in landfills.	The State requires the purchase of recycled materials if it is feasible & environmentally sound. This includes retread tires, chipped tires for road fill, & rubberized asphalt.	<ul> <li>March 1990, Depart. of Transportation (DOT) report submitted to legislature about use of ground tire rubber as asphalt concrete additive.</li> <li>DOT recycling project established included comprehensive review of feasible alternatives for using recyclable materials in construction. Ground rubber from tires was one of materials identified in the study.</li> <li>Pulp &amp; paper mills have been licensed to burn 40,000 tons per year of tire-derived fuel.</li> <li>17,000 tons tire chips used as lightweight fill in road construction 1996-97.</li> </ul>

## Maryland

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Processor & Hauler Regulations
Maryland Department of	• HB 1202, the Scrap Tire	<ul> <li>Maryland's Used Tire</li> </ul>	Scrap tire collection
the Environment (MDE)	Recycling Act enacted in	Cleanup & Recycling Fund	facilities, & haulers are
	1991, regulates the proper	was created by law.	required to obtain licenses.
Waste Management Administration	disposal of scrap tires.	Funds are generated from	Three types of collection
Recycling Service Division	Requires licensing of scrap	collection of the fee,	facility licenses are available:
	tire recycling, collection,	penalties, & cost	General license for up to 250
Telephone: 410-537-3314	hauling, & tire-derived fuel	recovery.	scrap tires at any given time,
Website: <u>www.mde.maryland.gov</u>	operations. Establishes a	• As of February 1, 1992,	Secondary license for up to
	mechanism for the cleanup	the State has a tire	1,500 tires, & Primary license
	of scrap tire stockpiles. Sets	recycling fee of up to \$1	for more than 1,500 tires at
	a fee of up to \$1/tire on new tire sales to fund the	to be collected by retail tire dealers on the first	any given time. Licenses are issued for 5-10 years
	Scrap Tire Program.	sale of a new tire in the	(depending on the type of
	• COMAR 26.04.08 (2020 -	State, including new tires	license).
	Draft) contains regulations	sold as part of a new or	Scrap tire hauler license
	covering storage, collection,	used vehicle. Dealers may	applicants must submit a copy
	transferring, hauling,	keep 0.6% of the gross	of their valid driver's license
	cleanup, recycling, &	amount of the fee	or identification card, the
	processing of scrap tires.	collected & give the	applicant's Social Security
	Source:	remainder to the	number or federal employer
	https://mde.maryland.gov/	Comptroller of the	ID number, & Minority
	programs/LAND/Recyclinga	Treasury, who transfers	Business Enterprise (MBE)
	ndOperationsprogram/Page	these fees to the Used	status; provide a map
	s/scraptireprogram.aspx	Tire Cleanup & Recycling	showing geographical area of
		Fund.	service; identify all sites
		<ul> <li>The Used Tire Cleanup</li> </ul>	where tires will be collected,
		& Recycling Fund is used	delivered or transferred; &
		for:	maintain records on the
		<ul> <li>Cleaning up existing</li> </ul>	origin, #, & destination of
		stockpiles of used tires	scrap tires hauled.
		$_{\odot}$ Establishing a tire	<ul> <li>Scrap tire collection</li> </ul>
		recycling system	facilities are required to
		<ul> <li>Assisting tire recycling</li> </ul>	provide: a copy of the
		projects	applicant's valid driver's
		<ul> <li>Providing financial</li> </ul>	license or identification card,
		assistance to recycling	the applicant's Social Security
		companies	number or federal employer
		<ul> <li>Providing public</li> </ul>	identification number, MBE
		education.	status, & a zoning
			certification; the maximum #
			of tires to be accumulated at
			a facility on a daily basis & at
			any given time; general
			facility information &
			operation; scrap tire hauler
			information; & the final destination of the scrap tires
			destination of the scrap tires. The technical & storage
			standard requirements may
			be applicable to collection
			facilities.

Storage & Processor	Disposal Restrictions	Financial / Market	Approved / Allowed Uses
Regulations		Incentives	
Scrap Tire Recyclers, Tire Derived Fuel Facilities, &	Tires banned from all     Maryland landfills.	• State has a 5% price preference for products	The Maryland     Environmental Service (MES)
-			
Innovative Processors are required to obtain a license from	<ul> <li>The law allows the Secretary of the</li> </ul>	containing recycled materials.	is responsible for developing
	-		the statewide tire recycling
MDE. Approvals are required for	Environment to take remedial action &/or	Maryland     Environmental Service	system.
Solid Waste Acceptance Facilities. Licenses & Approvals	-		• MDE & MES work together to perform demonstration
	remove tires at any site if he or she determines	Scrap Tire Management	-
<ul><li>are issued for 10 years.</li><li>Scrap tire processors are</li></ul>	disposal may be	Program to date includes:	programs using money from the Used Tire Cleanup &
required to provide: a copy of the	carried out improperly	<ul> <li>Retreaded Tire</li> </ul>	Recycling Fund.
applicant's valid driver's license or	or in a way that	Utilization Project	As of 2020, five scrap tire
identification card; the applicant's	threatens the	<ul> <li>Remanufactured Tire</li> </ul>	• As of 2020, five scrap the processing facilities were
Social Security number or federal	environment.	Demonstration Project	operating & accepting
employer identification number; &	environment.	<ul> <li>Promoting the use</li> </ul>	significant quantities of tires.
MBE status. The technical &		of tire chips as a	These operations include
storage standard requirements		supplemental fuel in	three scrap tire recycling
may be applicable to processing		cement kilns	operations, one cement kiln
facilities.		<ul> <li>Researching the use</li> </ul>	that utilizes tires as
<ul> <li>Scrap tire recycling operation</li> </ul>		of scrap tires in asphalt	supplemental fuel, & one
must submit a complete proposal		& in composting	scrap tire solid waste
that includes a detailed site plan, tire		<ul> <li>Catalog of products</li> </ul>	acceptance facility.
processing capacities, maximum		issued to promote use	With cooperation of State
quantity of tires at the facility,		of products	agencies & volunteers, MDE
general facility information &		manufactured of scrap	constructed playgrounds
operation, & documentation on the		tire material	using whole & shredded
availability of tire product markets.		<ul> <li>Tire reef project.</li> </ul>	scrap tires in State Parks &
The facility's ability to meet			using scrap tire safety
technical & operational standards			surface material at various
for tire storage is required if facility			public schools.
plans to accumulate scrap tires in			Landfill Construction &
any form or configuration in excess			Cap Demonstration Projects
of 15,000 cubic feet. Emergency			using tire chips were
preparedness manuals closure plans,			constructed at landfills
financial statements, financial			throughout Maryland.
assurance, & public notice are also			Rubber modified
required for these operations.			asphalt was installed at
• Tire-derived fuel facilities'			two locations on
requirements are similar to recycling			Maryland's Eastern Shore
facilities, except for market			to demonstrate &
information.			encourage its use.
Solid waste facility approvals are			
granted by a modification to the			
facility's refuse disposal permit.			
Innovative Processor requirements			
will be on a case-by-case basis but			
may be similar to recycling & tire-			
derived fuel facilities.			

## Massachusetts

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
Massachusetts Department of Environmental Protection (MassDEP) Telephone: 617-574-6867 Website: <u>https://www.mass.gov/servic</u> <u>e-details/waste-recycling- laws-rules</u>	<ul> <li>As of December 31, 1991, whole tires are banned from disposal in landfills. Tires must be shredded prior to disposal in landfills.</li> <li>Source: https://www.mass.gov/guides/ massdep-waste-disposal-bans</li> <li>Processing facilities are exempt from solid waste regulations if the facility can demonstrate that the tires are being recycled or reused.</li> <li>Businesses that recycle tires are regulated either under 310 CMR 16.03(2)(b)6. or if these requirements are not met, either 310 CMR 16.04 or 16.05, Source: https://www.mass.gov/doc/310-cmr- 1600-site-assignment-for-solid-waste- facilities/download</li> </ul>	Recycling Loan Fund for companies that reuse or recycle tires.	<ul> <li>Massachusetts DEP does not regulate solid waste haulers.</li> <li>Scrap tire collection facilities are exempt from solid waste regulations if the facility can demonstrate that the tires are being recycled or reused.</li> <li>Businesses that recycle tires are regulated either under 310 CMR 16.03(2)(b)6. or if these requirements are not met, either 310 CMR 16.04 or 16.05. Source: https://www.mass.gov/doc/3 <u>10-cmr-1600-site-</u> assignment-for-solid-waste- facilities/download</li> </ul>
Storage & Processor Regulations	Disposal Restrictions	Financial / Market Incentives	Approved / Allowed Uses
<ul> <li>Storage &amp; processing facilities are regulated as handling facilities &amp; must meet permitting criteria.</li> <li>Processing facilities are exempt from solid waste regulations if the facility can demonstrate that the tires are being recycled or reused.</li> <li>Businesses that recycle tires are regulated either under 310 CMR 16.03(2)(b)6. or if these requirements are not met, either 310 CMR 16.04 or 16.05. Source: <u>https://www.mass.gov/doc/3</u> <u>10-cmr-1600-site- assignment-for-solid-waste- facilities/download</u></li> </ul>	<ul> <li>As of December 31, 1991, whole tires are banned from disposal in landfills. Tires must be shredded prior to disposal in landfills. Source: <u>https://www.mass.gov/guides/massd</u> <u>ep-waste-disposal-bans</u></li> <li>Disposal sites must meet permit criteria.</li> </ul>	Recycling Loan Fund is available for tire reuse or recycling projects.	Beneficial Use Determinations (BUDs) granted to use tire chips as landfill cover.

## New Hampshire

State Agency	Legislation & Regulations	Funding Sources/Fees	Collector, Seller & Hauler Regulations
New Hampshire Department of Environmental Services (NHDES) Waste Management Division Telephone: 603-271- 2925 Website: www.des.nh.gov	Waste/scrap tires are regulated as solid waste pursuant to: • NH Solid Waste Management Act, RSA 149-M, • NH Administrative Rules for Solid Waste Management, Env-Sw 100 et seq.; See Env-Sw 905, specific to tires. RSA 149-M:17 specifies towns shall assure access to approved solid waste facility for its residents. RSA 149-M:18 authorizes municipalities to collect a fee for disposal of motor vehicle waste, including tires. Sources: <u>RSA 149-M:</u> http://www.gencourt.state.nh.us/rsa/ html/NHTOC/NHTOC-X-149-M.htm <u>NH Solid Waste Rules:</u> https://www.des.nh.gov/organization/ commissioner/legal/rules/index.htm#s olid	Municipalities are authorized to collect a fee via motor vehicle registrations, to be used for the collection & disposal of town motor vehicle wastes, including tires, batteries, & used oil. The fee rate is set by RSA 261:153, V.	Collectors: • Locations used for the collection of tires generated off-site, require a solid waste facility permit pursuant to RSA 149-M:9 & Env-Sw 303.02. • The storage of scrap tires generated on-site, for example by auto recyclers or tire retailers/installers, is subject to a permit exemption in Env-Sw 408.03, subject to conditions for active & proper management. Haulers. • Env-Sw 905.06, which requires the transportation of tires, either whole or shredded, to be accomplished to prevent tire pieces or whole tires from blowing or falling onto the roadways. • RSA 149-M:29-a, pertaining to solid waste hauler registration and annual reporting. Haulers of NH generated solid waste, including tires, for profit, must provide name & mailing address, & submit data annually. NHDES does not regulate the sale of tires.
Storage & Processor Regulations	Disposal Restrictions	Financial / Market Incentives	Approved / Allowed Uses
Outdoor storage of tires must be in accordance with height, width, fire lane, & berm specifications. See Env-Sw 905.02. Additionally, stored tires must be actively managed.	<ul> <li>See Env-Sw 905.04, which specifies:</li> <li>Tires must be disposed at authorized facilities only.</li> <li>If landfilled, tires must be disposed in a manner to preclude movement after burial, such as by shredding, splitting, or quartering; or filling.</li> </ul>	Not addressed.	See Env-Sw 905.05.

## **New Jersey**

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
New Jersey	The "New Jersey Statewide	All NJDEP staff that are	NJAC 7:26-3.4: Transporters hauling
Department of	Mandatory Source Separation &	involved in scrap tire	solid waste (including scrap tires)
Environmental	Recycling Act" (Recycling Act),	management, permitting, &/or	destined for disposal must be
Protection (NJDEP)	N.J.S.A.13:1E-99.11 et seq.,	enforcement actions are	registered as a NJDEP authorized solid
	required New Jersey's 21	funded through typical state	waste transporter.
Division of Waste,	counties to develop recycling	budget funding sources.	Source:
Pesticides & Release	plans that mandated the	Pursuant to C.13:1E-224 Tire	https://www.state.nj.us/dep/dshw/re
Prevention	recycling of at least three	Management & Cleanup Fund	source/CURRENT/WEB%20PDFS/26%
Bureau of Solid	designated recyclable materials	effective August 1, 2004,	20CHAPTER%203.pdf
Waste Compliance	in addition to leaves (some	collection of a fee of \$1.50 for	
& Enforcement	counties have chosen scrap	every new tire sold in NJ was	NJAC 7:26A-8.4: Currently,
	tires).	mandated; the fee was	transporters strictly hauling scrap
Telephone: 609-	Source:	designed to fund scrap tire	destined for recycling need not
292-6305	https://www.state.nj.us/dep/ds	cleanup projects & support	register. However, the containers
Website:	hw/recycling/recy_act_link.htm	NJDOT operations within the	being used for that purpose must be
https://www.state.		state.	in good working condition & not
<u>nj.us/dep</u>	NJAC 7:26A Recycling	Source:	leaking or spilling out of the
	regulations address Class B	https://nj.gov/state/dos-	vehicle/container.
	recycling facilities for Class B	<u>statutes.shtml</u>	Source:
	materials, which include scrap		https://www.state.nj.us/dep/dshw/re
	tires; depending on the quantity	There are currently no NJDEP	source/CURRENT/WEB%20PDFS/26A.
	received/stored, the facility will	fees associated with exempt	<u>pdf</u>
	either be classified as a #5	scrap tire facilities. However,	
	exempt scrap tire recycling	pursuant to NJAC 7:26A,	New tire retail or wholesale centers
	facility or a full Class B Approval	facilities that hold a Class B	selling new tires - but not receiving or
	(permit) may be required.	Approval pay an initial	generating scrap tires - are not
	Source:	application fee of \$5,281, a	regulated by the referenced scrap tire
	https://www.state.nj.us/dep/ds	Class B Renewal fee of \$960	management rules.
	hw/resource/CURRENT/WEB%2	every five yrs., an annual fee of	
	0PDFS/26A.pdf	\$4,724, & Quarterly	
		Compliance Monitoring	
	NJAC 7:26 Solid waste	(Inspection) fee of \$2,282.50.	
	regulations - address scrap tires	Source:	
	destined for disposal as a Type	https://www.nj.gov/dep/dshw	
	13 solid waste.	/resource/CURRENT/WEB%20P	
	Source:	DFS/26A.pdf	
	https://www.state.nj.us/dep/dsh		
	w/resource/CURRENT/WEB%20P		
	DFS/26%20CHAPTER%201.pdf		
	See also Storage & Processor		
	Regulations & Disposal		
	Restrictions described below.		

Storage & Processor	<b>Disposal Restrictions</b>	Financial / Market Incentives	Approved / Allowed Uses
Regulations		incentives	
Facilities/	Scrap tires destined for recycling	Recycled scrap tires qualify for	While a detailed survey has not been
persons that	<ul> <li>Scrap tires must be</li> </ul>	municipal recycling tonnage	conducted recently in NJ, the end
receive, generate,	transported to a NJDEP	grant credits.	markets for scrap tires in NJ appear to
recycle, &/or	authorized exempt scrap tire		generally mirror the U.S. Tire
dispose of scrap	recycling facility OR a facility	Industries purchasing new	Manufacturers Association (USTMA)
tires in NJ are	that has a Class B Approval	recycling equipment may be	2017 report which provided the
regulated by the	(permit) including scrap tires as	eligible for low interest loans.	following nationwide statistics:
NJDEP in several	an accepted material.		<ul> <li>43%: Tire derived fuel</li> </ul>
ways:	Scrap tires destined for disposal	Legislation & Executive Order	<ul> <li>25% Ground Rubber</li> </ul>
1. Illegal scrap tire	<ul> <li>as Type 13 solid waste, they</li> </ul>	require the procurement of	<ul> <li>16% Land Disposal</li> </ul>
dump: regulated by	must be transported by a NJDEP	recycled products.	<ul> <li>8% Civil Engineering</li> </ul>
the solid waste	registered solid waste		• 8% Other
rules {NJAC 7:26-	transporter to a NJDEP		Source:
2.8}.	permitted solid waste transfer or		https://www.ustires.org/system/files/
2. Exempt Scrap	disposal facility.		USTMA_scraptire_summ_2017_07201
Tire Recycling			<u>8.pdf</u>
Facilities: generate,	Residents (non-commercial),		
receive, &/or	who have scrap tires, can usually		Examples of Civil Engineering
recycle no more	take them to their township or		applications in NJ
than 5,000/mo. &	county citizen's drop-off		The NJ Department of Transportation
no processing,	recycling or disposal center.		(NJDOT) has conducted a number of
retreading facilities,	Abandoned scrap tire dumps are		demonstration projects that utilize
& use of scrap tires	illegal solid waste disposal		various mixes of rubber-modified
in a reef - regulated	facilities pursuant to NJAC 7:26-		asphalt as road base.
by the recycling	2.8.		NJDEP promotes the use of scrap tire
rules {NJAC 7:26A-			chips in various county landfill
1.4}.			construction applications, such as
3. Scrap Tire			using scrap tire chips as a protective
Recycling Facility			layer over the leachate collection
with a Class B			system & as bedding for the leachate
Approval: Facilities			recirculation/gas collection system.
exceeding the limits			
of the Exempt			NJDEP has also provided technical &
Facility described in 2 above must obtain			financial support for an innovative
an Approval			project involving the use of scrap tires
(permit) from			as a flow control device to mitigate
NJDEP.			scouring around bridge piers.
4. Solid Waste			
Transfer & Disposal			The New Jersey Department of
Facility: Scrap tires			Treasury, in conjunction with the
being disposed of in			NJDOT & NJDEP, issued a bid proposal
NJ must be			for the furnishing of light
transported by a			truck/commercial retread tires &
NJDEP registered			service to all State agencies, quasi-
solid waste hauler &			agencies, & political participants in
disposed of at a			designated counties. As part of the
NJDEP permitted			bid, tire casings are to be picked up by
solid waste transfer			the vendor & replaced with retreaded
station, landfill, or			tires. Five vendors have been awarded
· · · · · · · · · · · · · · · · · · ·			contracts to provide this service.

### **New York**

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
New York State Department of Environmental Conservation (DEC) Division of Materials Management Telephone: 518-402-8652 Website: www.dec.ny.gov	<ul> <li>State Regulations for Solid Waste regulate waste tire transportation, storage &amp; processing facilities. Pertinent regulations include 6 NYCRR Part 360; Subpart 361-7; &amp; 6 NYCRR Part 364.</li> <li>An amendment to Chapter 226 (Section 27- 0303) of the Environmental Conservation Law, passed in 1990, designated commercial waste tires as a regulated waste. Commercial waste tires are defined as waste tires that are transported for a fee for the purpose of reuse, recycling, or disposal.</li> <li>ECL Article 27. Title 19. Waste Tire Management &amp; Recycling Act was enacted in 2003 to ensure the proper management of waste tires in New York State by enacting a fee on purchase of new tires to fund cleanup of illegally- disposed tires; prohibition on landfill disposal of whole tires &amp; various measures to promote recycling of waste tires. Source: ECL Article 27: https://www.nysenate.gov/legislation/laws/ENV/ A27 Regulations Portal: https://www.dec.ny.gov/regs/2491.html</li> </ul>	A \$2.50 fee per new tire purchase, authorized under the 2003 law, funds tire abatement & regulatory programs in New York State.	Transporters of greater than 2,000 pounds of commercial waste tires must be permitted with the DEC under 6 NYCRR Part 364.
Storage & Processor	Disposal Restrictions	Financial / Market	Approved / Allowed
Regulations		Incentives	Uses
<ul> <li>Waste tire storage requirements depend upon number of waste tires stored.</li> <li>No person shall engage in storing 1,000 or more waste tires at a time without a Part 360 Series authorization.</li> <li>Storage authorization requirements cover waste tire pile size, dimensions &amp; fire controls.</li> </ul>	Disposal of whole tires or portions of tires in any landfill is prohibited.	<ul> <li>DEC administers grants to municipalities for recycling programs, including tires.</li> <li>New York State Empire State Development (ESD) &amp; the New York State Energy Research &amp; Development Authority (NYSERDA) provide guidance &amp; assistance for projects to develop, demonstrate or evaluate innovative &amp; energy-efficient equipment, technologies, processes, &amp; other methods for managing all types of solid waste, including tires.</li> </ul>	<ul> <li>NYS beneficial use</li> <li>regulations (6 NYCRR Part</li> <li>360.12) allow the</li> <li>following: <ul> <li>Tire-derived aggregate</li> </ul> </li> <li>(TDA) meeting NYS</li> <li>regulations (10 NYCRR Part</li> <li>75-A) can be used in</li> <li>residential septic leach</li> <li>fields as a filter medium.</li> <li>Crumb rubber (wire- &amp;</li> <li>fiber-free particles less</li> <li>than 3/8-inch in size) is not</li> <li>subject to regulation as a</li> <li>solid waste.</li> <li>Larger wire-free particles</li> <li>can be used as mulch.</li> <li>Small quantities (150 or</li> <li>fewer) can be used on any</li> <li>property for</li> <li>manufacturing feedstock</li> <li>or for landscaping</li> <li>purposes.</li> <li>Case-specific beneficial</li> </ul>

	uses can be reviewed, such as use of earth-filled tires for house construction or retaining walls.
	Chipped tires are frequently used in landfills as drainage or gas-venting media, for cushioning, for operational cover or as a base for haul roads (6 NYCRR Part 363).
	Tires can be stored on a site for use as fuel if their combustion is authorized through NYS air quality regulations (6 NYCRR Part 362-1).

## **Rhode Island**

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
Rhode Island Department of Environmental Management (RI DEM) Telephone: 401-222-2797 Website: <u>www.dem.ri.gov</u> RI Resource Recovery Corp. Telephone: 401-934-1430 Website: <u>http://www.rirrc.org/</u>	<ul> <li>RIGL 37-15.1, "Hard-to- Dispose Material - Control &amp; Recycling," applies to scrap tires.</li> <li>Solid waste management facility regulations apply to tire dumps &amp; regulate size of piles, fire control measures, etc.</li> <li>RIGL 23-63, "Vehicle Tire Storage &amp; Recycling," enacted in 1992, established a \$5 deposit on each new vehicle tire purchased &amp; provided for a full refund to the consumer upon return of used tires. This deposit system became effective January 1, 1993.</li> </ul>	<ul> <li>January 1, 1990, a \$0.50/tire tax on new tire sales was imposed. Revenues are deposited in a "Hard-to-Dispose Material Account" along with monies from surcharges on other "hard-to-dispose" wastes included in the bill. The State generates \$3 million/year from the fees to fund educational &amp; technical assistance programs for collection, marketing, recycling, reuse, reduction, &amp; safe disposal of "hard-to-dispose materials"; to establish grant &amp; research programs; to survey, track, &amp; monitor hard-to-dispose materials.</li> <li>Tire recyclers are assessed an initial license fee of \$50 &amp;</li> </ul>	No specific regulations.
Storage & Processor Regulations	Disposal Restrictions	an annual renewal fee of \$25. Financial / Market Incentives	Approved / Allowed Uses
<ul> <li>Facilities storing more than 400 tires must obtain a license from the RI DEM.</li> <li>Tire recycling or recovery businesses must be licensed by the RI DEM.</li> </ul>	<ul> <li>Disposal of scrap tires is restricted to one of three methods:         <ul> <li>Facilities operated by the State Rhode Island Resource Recovery Corporation</li> <li>Licensed privately operated tire storage, recycling, or recovery facilities</li> <li>Transport to an out-of- state recycling facility.</li> <li>Burning of scrap tires within the State is banned.</li> <li>Exporting tires for burning as fuel outside the State &amp; within 30 miles of any reservoir watershed for RI can occur only after the DEM receives written assurance that the burning facility meets all applicable State &amp; Federal pollution control standards.</li> </ul> </li> </ul>	The Hard-to-Dispose Material Account funds educational & technical assistance programs for collection, marketing, recycling, reuse, reduction, & safe disposal of hard-to- dispose materials, including scrap tires.	

## Vermont

State Agency	Legislation & Regulations	Funding Sources / Fees	Collector, Seller & Hauler Regulations
Vermont Department of Environmental Conservation (VT DEC) Waste Management & Prevention Division Telephone: 802-828-1138 Website: https://dec.vermont.gov /waste-management	The only legislation specific to tires bans them from landfills. Source: <u>https://legislature.vermont.gov/statutes/s</u> <u>ection/10/159/06621a</u> Solid Waste Management Rules contain requirements for facilities that manage tires. Source: <u>https://dec.vermont.gov/sites/dec/files/wmp</u> <u>/SolidWaste/Documents/SWRule.final .pdf</u>	Vermont has no dedicated funding source for scrap tire management or illegal tire dump clean up. All Solid Waste Management Program funds are a result of a \$6/ton franchise fee on solid waste that is disposed of.	Scrap tires are considered a solid waste. As such, commercial scrap tire haulers need a waste hauling permit. Vermont keeps a publicly available list of licensed scrap tire collectors.
Storage & Processor Regulations	Disposal Restrictions	Financial / Market Incentives	Approved / Allowed Uses
Storage facilities & processors need a permit with conditions on management, on site quantities, & ultimate disposition.	<ul> <li>Since January 1, 1992, all tires have been banned from disposal in landfills.</li> <li>Landfills are allowed to continue accepting tires if the facility functions as a tire recycling facility or a transfer station.</li> </ul>	<ul> <li>A 5% price preference is authorized for products containing recycled materials.</li> <li>A higher price preference is allowed if State entities that will use the product agree on the higher price.</li> <li>Market development grants are provided to the private sector for the development of new products that may stimulate in-State demand for recyclable materials.</li> <li>ANR &amp; VTrans are partnering on a pilot project using Tire Derived Aggregate as a drainage medium.</li> </ul>	<ul> <li>The Agency of Transportation has used tire chips in several projects for slope stabilization &amp; has done some experimental work using asphalt rubber surface treatment. Tires have also been allowed to be used for riverbank &amp; slope stabilization work in several areas, but only above low water level elevations &amp; where environmental concerns are minimal.</li> <li>Effective in 1992, the State approved the use of tire chips in place of crushed stone in septic systems that have a preapproved design that includes a monitoring system.</li> <li>The State can issue written approvals for the use of whole or modified tires for various applications on a case-by- case basis.</li> <li>In 1998, the VT DEC built a leach field using tire chips in place of stone &amp; monitored the effluent for 3 years.</li> </ul>