

## Retail Tire Dealer: Why is Scrap Tire Management Important?

*As a retail tire dealer you must use a registered scrap tire transporter to transport scrap tires to and from your business and you must follow Ohio's scrap tire handling and storage requirements. These requirements are necessary to protect you and your community.*

### What is a scrap tire generator?

A scrap tire generator is any individual or business that removes tires from vehicles or stores tires removed from vehicles. Generators include but are not limited to: individual citizens; retail tire dealers; service stations; tire retreading businesses; and motor vehicle salvage dealers.

If certain conditions are met, most generators typically do not have to register as a scrap tire facility under the scrap tire rules. This means that most generators do not have to obtain an annual license or a scrap tire registration/permit from Ohio EPA. However, even if your business meets one of the exemptions, there are certain requirements that you must meet to maintain this unlicensed status.

### Why do I have storage and handling requirements?

When scrap tires are not stored and handled properly, they can pose serious health and environmental threats.



#### Health Threat

By design, scrap tires provide an ideal breeding environment for mosquitoes. The circular shape of a tire allows it to fill with water after a rainstorm. Some of this water evaporates while the remaining water becomes trapped inside the continuously shaded areas of the tires. The circular shape also allows tires to collect leaf litter and debris that provides nutrition for the larvae. The insulating property of tires allows them to retain heat for long periods of time which can speed up mosquito egg hatching and larval growth (Anderson 2016)<sup>1</sup>.

Mosquitoes are a problem throughout Ohio. At least 62 different species of mosquitoes are found in the state. Mosquitoes interfere with work and leisure activities due to the annoyance of their bites and irritating reaction that follows. Most importantly, they can transmit diseases such as La Crosse, St. Louis, Eastern Equine and West Nile Virus encephalitis which can be life threatening to livestock and vulnerable age groups amongst humans.

The most effective mosquito control is to keep tires dry. The easiest way to keep tires dry is to store them indoors. If they must be stored outside, tires should be kept in an enclosed portable container or stacked and tarped to prevent them from collecting water.

Ohio EPA regulations are designed to reduce the potential for mosquitoes to breed in scrap tires, whether the tires are located at a regulated facility or stored by individual property owners. Scrap tire generators, transporters, facilities and persons approved for beneficial use projects must control mosquito breeding in the tires by keeping the tires dry and appropriately stacked, or by using an insecticide or larvicide registered by the Ohio Department of Agriculture for use in Ohio, as necessary.

#### Fire Threat

It is also important for scrap tires to be stored properly to avoid tire fires. Maintaining the appropriate distances from ignition sources and being diligent about keeping any possible sources of sparks or open flame away from tires will reduce the risk of a fire. If a fire does start in an area with properly stored scrap tires, the fire is not able to spread as fast and fire fighters are able to isolate hot piles more easily so that that your business or property will sustain less damage and the fire will be less like to spread onto neighboring properties.

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Tires are made of very combustible compounds. Although tires are not easy to ignite because they are designed to absorb the heat generated by the friction of road contact, once ignition takes place, this same ability of tires to absorb heat makes them extremely difficult to extinguish. The high carbon content and steel cords within tires serve as a heat sink that absorbs and stores heat within the tire. During the various stages of combustion, the composition and configuration of tires impair the ability to extinguish the tire pile. Once a large tire fire is underway it is unlikely that water or most firefighting chemicals will be able to fully extinguish the fire. Even if the visible flames can be subdued there is the possibility of the stored heat resulting in spontaneous reignition. The most effective method of subduing a large tire fire is to completely smother it with soil, which is impractical at most locations.

Beyond the risk of loss of property inherent in a fire, tire fires in particular pose a health threat to anyone that comes into contact with the smoke and oils generated by the fire. During a fire, tires break down into hazardous compounds including gases, heavy metals and oil. When burned, the average passenger car tire is estimated to produce more than two gallons of oil. Tire fire run-off is a significant environmental pollutant that can get into ground water and contaminate well water. In addition to run-off oil, at least 32 toxic gases are produced by tire fires (USFA 1998)<sup>2</sup>.

### Why do I have to use a registered scrap tire transporter?

Ohio's scrap tire laws require scrap tire transporters to become registered when they transport more than 10 scrap tires in a load (there are some exceptions). Among other requirements, registered scrap tire transporters must have adequate finances available to ensure funding will be available for the removal and disposal of improperly accumulated or discarded scrap tires.

As the scrap tire generator, you remain liable for any costs associated with the illegal dumping of the tires. You are even liable if the transporter takes the tires for free. For instance, if your businesses uses a non-registered scrap tire transporter, and the hauler dumps all except the few scrap tires that can be sold as used tires or retreadable casings, you could be charged with open dumping and have to pay to clean up the discarded tires.

Furthermore, if you haul more than 10 scrap tires at a time for your business and are not a registered transporter you could be also cited for transporting scrap tires without a registration and risk both civil and criminal enforcement.

It should be noted that in Ohio there is no distinction between used tires that could potentially be resold, and tires that are only fit for disposal or recycling. They are all scrap tires under Ohio law and must be transported by a registered scrap tire transporter except in certain circumstances.

### What happens to my scrap tires after they leave my business?

By utilizing a registered scrap tire transporter, you protect yourself and your community and ensure that scrap tires are properly recycled, reused or disposed. Registered scrap tire transporters are aware of the licensed scrap tire facilities and alternative uses approved by Ohio EPA. Most scrap tires generated in Ohio are transported to a scrap tire recovery facility operating within the state. The typical scrap tire recovery facility operates one or two shredding lines that reduce the scrap tire into pieces ranging from 4" in size down to a fine powder.

In Ohio, more than 50 percent of the scrap tires that are sent to be repurposed are used in a civil engineering application. Common civil engineering applications include use as drainage layers in landfills and gravel substitute for backfill around home and building foundations or basements. More commonly known scrap tire products include playground mulch and synthetic turf infill. Tires also have a higher heating value range than coal and can serve as a good fuel source.



### Kirby Tire Fire

Occurring in 1999, the Kirby Tire fire is the worst tire fire in Ohio's history. The fire covered 14 acres of tires and it took the Ohio National Guard and about 250 firefighters from at least 17 departments to put the fire out. The fire lasted at least five days and burned the equivalent of seven million tires. There were also 23 million tires on site that did not burn, but that had to be cleaned up. After nine years and more than \$32 million, the cleanup of the state's largest tire fire was deemed complete.

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*Many beneficial products can be made from scrap tires, including civil engineering applications such as paving and drainage layers.*

### More Information

For more information about your obligations, refer to Guidance Document #645: Scrap Tire Generators: Know Your Ohio EPA Regulations.

If you are interested in becoming a registered scrap tire transporter, refer to Guidance Document #640: Standards and Requirements for Scrap Tire Transporters.

<sup>1</sup> Anderson, Maria. 2016. EPA Blog – Improperly Stored Tires Lead to Big Mosquito Problems, <https://blog.epa.gov/blog/2015/08/improperly-stored-tires-lead-to-big-mosquito-problems/>

<sup>2</sup> U.S. Fire Administration. Technical Report Series, Special Report: Scrap and Shredded Tire Fires. USFA-TR-093/December 1998