Where the Rubber Meets the Road: State Trends in Tire Disposal Laws and Regulations

By Anne Roberts Brody

While states have made excellent progress during the past 20 years, more work is needed to ensure that existing waste tire stockpiles are remediated and new stockpiles are prevented. This article outlines some of the key criteria contained in states' waste tire disposal laws and regulations, and assesses best practices undertaken by states.

Introduction

Despite more than 20 years of efforts to address waste tires nationwide, large, illegal stockpiles persist. The Rubber Manufacturers Association estimates that in 1990 more than 1 billion scrap tires existed in stockpiles across the country.[1] By 2015, more than 93 percent had been remediated.[2] This demonstrates that legislative and regulatory measures can create frameworks for sustainable management through fee assessment, tracking and compliance, and the encouragement of beneficial end-use markets. This article outlines some of the key criteria contained in states' waste tire disposal laws and regulations, and assesses best practices undertaken by states.

What are the Risks?

Large waste tire stockpiles present a threat to human health and the environment. They provide an ideal breeding ground for mosquitoes, which can carry and transmit life-threatening diseases such as dengue fever, encephalitis and West Nile virus. Lightning strikes, equipment malfunctions, arson and other events can cause large waste tire stockpiles to ignite. The longer a stockpile persists, the more likely it is to catch fire. Waste tire fires may cause air, surface water, soil, groundwater and residual contamination that can negatively impact human, animal and plant life. When ignited, waste tire piles generate dense, black smoke containing partially combusted hydrocarbons. The smoke plume can cause air pollution that negatively impacts area homes and businesses. The residuals—ash, wire and unburned rubber—from a waste tire fire often require special handling and disposal that can be costly to facilitate.

Waste Tires

A variety of definitions of waste tire(s), sometimes referred to as scrap tires, can be found in the legislation and policies implemented by states. For the purposes of this article, a waste tire is defined as a tire that no longer is mounted on a vehicle and no longer suitable for use as a vehicle tire due to wear, damage or deviation from the manufacturer's original specifications. Nationwide, most states' waste tire disposal policies are established through legislation, with the legislative branch directing the state agency responsible for environmental quality and protection to adopt administrative rules. Most policies involve the collection of a fee to cover the cost of waste tire disposal, remediation of illegal tire dumps, tracking and certification requirements, waste tire collection site specifications, and suggested beneficial end uses for waste tires.

Fee Assessment

Waste tire stockpiles do not have a positive net value, as reducing and eliminating stockpiles may cost more than can be derived from product revenue, particularly in sectors where beneficial end use markets are not yet fully developed. If owners of waste tire stockpiles or illegal dumps are unable or unwilling to finance the ultimate remediation and closure of the site, the stockpiles become public liabilities, and funding to mitigate the associated public health and environmental hazards must be provided. States often establish funding mechanisms within the enabling legislation that authorize their waste tire programs. These programs often are implemented by the regulatory agencies that are responsible for environmental quality and protection. Nationally, a total of 37 states have a

mandated tire fee.[3] The average fee ranges from $1–$2, though some states have fees as low as $0.25. In most states, a specific fee amount is established by legislation or through rulemaking. This is not the case in Hawaii and Idaho. Hawaii allows tire retailers to establish a fee, while Idaho has authorized county commissioners to establish fees.

While a mandated tire fee is the most commonly used funding mechanism, other funding structures do exist. North Carolina imposes a privilege tax instead of a fee and West Virginia imposes a one-time $5 fee on all new automobile registrations.

Effective waste tire programs require consistent and ongoing funding. Variability in funding may negatively impact a state's ability to continually monitor and enforce waste tire programs. Dedicated trust funds have been used successfully to achieve uniformity but are vulnerable to redirection to a state's general fund during budget shortfalls. Funding levels equivalent to at least $1 per waste tire have proven to be adequate to maintain comprehensive programs.[4]

Tracking and Certification

Regulations and infrastructure are essential to effectively assessing and remediating waste tire stockpiles. Without the ability to track the movement and processing of waste tires, states are unable to accurately monitor the disposal of tires and prevent the formation of new illegal stockpiles. Most states have developed rigorous systems for tracking tires, as well as certification and permitting processes for waste tire processors, transporters and storage facilities. As the accessibility of mobile devices increases, many states have begun to move their tracking and certification systems online. Electronic manifests can enhance compliance, reduce the risk of lost or damaged paperwork, contain more reliable data, and increase the quality of records. A state's ability to track the life of a tire from its point of manufacture to the point of end use or disposal can enhance compliance and reduce the number of new illegal stockpiles.

Collection Sites

Waste tire storage facilities generally are required to be permitted or registered in order to store tires above an established minimum. This minimum can range from 50 to 10,000 tires.[5] State regulations often specify storage techniques to enhance the safety of the storage facility. In many states, regulations are placed on the distance that must be maintained between each waste tire pile, the height of each pile, buffers between property lines and waste tire storage areas as well as drainage systems, vector control and fire preparedness.

Usage

Waste tires can have second lives as repurposed or recycled products. They can be recycled by cutting, punching or stamping them into various rubber products after removal of the steel bead. Tires can be used as fuel either in shredded form—known as tire-derived fuel, or TDF—or whole, depending on the type of combustion device. Scrap tires typically are used as a supplement to traditional fuels such as coal or wood. The Rubber Manufacturers Association found that in 2015, 48.6 percent of tires were diverted as TDF, 25.8 percent were processed as ground rubber, 11.4 percent were land disposed, 7 percent were used in civil engineering projects and 7.1 percent were used for miscellaneous purposes.[6,7] Recycled products can include floor mats, belts, gaskets, shoe soles, dock bumpers, seals, muffler hangers, shims and washers.[8] Whole tires also can be recycled or reused as highway crash barriers, tire swings, planters and for a variety of agricultural purposes.

Best Practices

An analysis of state laws and regulations reveals that to effectively manage waste tires, a state must have several mechanisms in place: a mandatory waste tire manifest system, regular reporting requirements, waste tire fee schedules, dedicated remediation funds, permitting systems and criminal penalties for violators. Additional enhancements may include: biennial auditing of waste tire programs, regular waste tire amnesty events and mobile processing units.

During the 2017 regular session of the Arkansas General Assembly, legislators approved House Bill 1267, creating the Used Tire Recycling and Accountability Program. Signed by Gov. Asa Hutchinson on March 2, 2017, House Bill 1267 exemplifies best practices in waste tire management. This legislation reformed the state's existing tiered waste tire fee system, shifting the focus from a fee imposed on the sale of a new tire, to a "rim fee." It established a $3 fee for all tires removed from the rim of a vehicle. To create a more robust funding structure, the legislation requires that an additional $1 fee be imposed when a culled used tire, instead of a new tire, replaces a tire removed from a rim. Fees collected must be remitted monthly to the director of the Department of Finance and Administration and must be accom-

panied by a return detailing the total fees collected during the previous calendar month. To cover the cost of administering the program, generators[9] may retain 5 percent of collected fees.

House Bill 1267 enhanced transparency by creating a robust framework for accountability, including a uniform electronic manifest system, monthly reports on fee collection, and mandatory biennial reporting by tire management programs. The legislation also established funding levels and priorities that encourage and incentivize responsible end use; provided incentives for program consolidation, which has been shown to improve program management; created penalties for violations; established a Used Tire Recycling Fund; and provided funding for illegal dumps control officers. Combined, these features create a foundation for a comprehensive and effective tire management program.

Conclusion

While states have made substantial progress during the past 20 years, more work is needed to ensure that existing waste tire stockpiles are remediated and new stockpiles are prevented. To achieve this, states have implemented legislation and regulations to provide funding for the cleanup of existing stockpiles, as well as tracking, certification, monitoring and enforcement protocols. Waste tire management programs can be further enhanced by the inclusion of biennial auditing, regular waste tire amnesty events and the utilization of mobile processing units. Through effective implementation, monitoring and continued enforcement, states can continue to eliminate and prevent waste tire stockpiles.

Notes

[1] "2015 U.S. Scrap Tire Management Summary" (Rubber Manufacturers Association, August 2016), *https://rma.org/sites/default/files/RMA_scraptire_summ_2015.pdf*.

[2] Ibid.

[3] "Waste Tire Program Annual Report to the General Assembly" (Energy and Environment Cabinet, Department for Environmental Protection, Division of Waste Management, 2014), *http://waste.ky.gov/Waste%20Tire%20Program%20Report/Waste%20Tire%20Report%202014%201-15-15-FINAL.pdf*.

[4] OSWER US EPA, "Frequent Questions | Scrap Tires," Collections & Lists, accessed August 17, 2015, *http://www.epa.gov/osw/conserve/materials/tires/faq.htm#ques12*.

[5] Ibid.

[6] Numbers may not add due to rounding.

[7] "2015 U.S. Scrap Tire Management Summary."

[8] US EPA, "Frequent Questions | Scrap Tires."

[9] House Bill 1267 defines "tire generator" as a tire retailer, wholesaler, transporter, manufacturer of retreaded tires, new car dealer, used car dealer, auto repair shop or salvage yard.

About the Author

Anne Roberts Brody joined the Southern Office of The Council of State Governments, the Southern Legislative Conference, in 2014. A recognized expert on tire disposal laws, she regularly publishes and speaks on myriad policy issues pertaining to energy, the environment, agriculture and rural development.