



## **Waste Permits Division**

### **2015 Scrap Tire Annual Report**

#### **Program background**

The Texas Commission on Environmental Quality (TCEQ) Waste Permits Division regulates the management of used and/or scrap tires in Texas under the authority of Texas Health & Safety Code Section (§) 361.011, 361.112, 361.1125. The tire regulations in 30 Texas Administrative Code Chapter 328, Subchapter F, outline regulatory requirements and standards related to used and/or scrap tire management activities. Owners and/or operators of regulated scrap tire management activities are required to obtain a TCEQ Scrap Tire Registration to ensure the safe management of scrap tires to protect human health and the environment.

#### **Regulated tire management activities**

Regulated management activities include used and/or scrap tire transportation, processing, recycling, utilization, storage, and land reclamation activity using scrap tires.

#### **Reporting period and requirements**

Owners and/or operators of scrap tire facilities and scrap tire storage sites as well as scrap tire transporters must submit an annual report to the TCEQ and include information related to their tire management activities during the calendar year such as the number of tires managed and their transfer including disposition/end-use destination. The annual report for the preceding calendar year is due on or before March 1 in a form prescribed by the TCEQ.

Scrap tire transporters must report the number and type of used and/or scrap tires collected, listed by generator name and address, the disposition of the tires, and the number of whole used and/or scrap tires delivered to each facility.

The owner and/or operator of a scrap tire facility (STF) and/or scrap tire storage facility (STSF) must report the number and type of scrap tires received, amount by weight of tires shredded, processed, burned for energy recovery or recycled, and the amount by weight of tire pieces removed from the facility. If the tire pieces were delivered to an end user, the annual report must include the name of the end user, type of end user and the date of delivery to the end user.

#### **2015 annual report summary findings**

According to agency records, there were 98 active registered STF's (processing, recycling, and energy recovery facilities) and 13 active registered STSF's in 2015. Ten of the 13 registered STSF's were also registered as a STF for a combined total of 101 active STF and STSF registrations. Of the 101 active STF/STSF registrations, 68 *Scrap Tire Facility and/or Scrap Tire Storage Site Combined Annual Activity Reports* were received. In addition, agency records indicated 456 active registered scrap tire transporters. The number of *Scrap Tire Transporter Annual Activity Reports* received for 2015 was 193. The discrepancy in the number of reports received and the number of registered entities is due to owner/operators failing to comply with notifying the agency when they go out of business or move and failing to submit annual reports timely.

Based on the information compiled from the annual reports, approximately 32.4 million used and/or scrap tires were managed in Texas in 2015. The main use or disposition avenues in Texas for used and/or scrap tires include the following broad categories: fuel source (TDF), crumb rubber production, use in land reclamation projects, landfill disposal, and other beneficial use as well as recycling. A discussion on each of these end-uses is provided below.

***End-use/disposition of scrap tires in Texas, calendar year 2015.***

<b>End-Use/Disposition</b>	<b>Approximate Scrap Tire Units Utilized/Disposed *</b>	<b>Percent of Utilization</b>
Other Recycling	1,472,688	4%
LRPUT	2,453,323	8%
Other Beneficial Use	3,665,649	11%
Crumb Rubber	5,474,750	17%
Landfill	8,028,398	25%
Tire-Derived Fuel (TDF)	11,304,815	35%
<b>Total</b>	<b>32,399,623</b>	<b>100%</b>

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\* One Scrap Tire Unit = One Scrap Tire, regardless of size

***Tire-derived fuel***

The highest use of used and/or scrap tires is for energy recovery and use as a fuel source. Tire-derived fuel accounted for 11.3 million (35%) of the 32.4 million tires managed in Texas. In 2015, about 7.5 million of the tires were processed at 5 of the 10 energy-recovery STF's with active registrations located in Texas. The remaining 3.8 million tires were transported outside the state for use as TDF.

***Crumb rubber***

Approximately 5.5 million (17%) of used and/or scrap tires were recycled to produce crumb rubber. To produce crumb rubber, steel and tire cord are removed and the tire shreds are ground to a granular consistency either with the aid of cryogenic or mechanical means to reduce the size of the particles. Rubberized asphalt is the biggest market for crumb rubber. Crumb rubber can be blended into asphalt and used in various roadway projects. Crumb rubber is also used as an infill for synthetic turf fields.

***Other recycling***

Other potential users include pulp and paper mills, electric utilities, and steel mills. These other users accounted for the use of approximately 1.5 million (4%) of all tires managed in 2015.

***Landfill disposal***

Approximately 8.0 million (25%) of the used and/or scrap tires generated or managed in Texas were disposed of in municipal solid waste (MSW) landfills. The TCEQ regulations specify that tires be split, quartered, or shredded before they are disposed of in a landfill. Scrap tire storage or processing activities at a landfill are authorized through the landfill's MSW permit.

## ***LRPUTs***

Approximately 2.5 million (8%) of the used and/or scrap tires generated or managed in Texas during 2015 were used for land reclamation at locations authorized by the TCEQ. Approved projects restore land to its approximate natural grade to prepare or reclaim the land for reuse.

## ***Other beneficial uses***

Other beneficial use of tires accounted for 3.7 million (11%) of the used and/or scrap tires utilized during 2015 in Texas. Beneficial uses include identification of usable tires and their resale, and production of tire mulch for landscaping.

## **Scrap tire management program funding**

Currently there is no dedicated funding for the scrap tire management program. There is no application fee for obtaining a scrap tire registration. Presently, the scrap tire management activities operate under a free-market system. Tire dealers set their own fees to cover their administrative and tire disposition costs.

The cleanup of tire sites is addressed through the use of financial assurance funds posted by the registration holder (in case of tire storage sites) or through supplemental environmental projects, administered by the TCEQ's Office of Compliance and Enforcement and/or the Office of Legal Services.

## **TCEQ's compliance and enforcement efforts**

The TCEQ's regional offices monitor scrap tire management activities in the state, evaluate compliance with TCEQ rules, and conduct enforcement action(s) against violators. The existing provisions for administrative and civil penalties for violating the Texas Health and Safety Code, Chapter 361 and corresponding TCEQ rules are located in Texas Water Code, Chapter 7. TCEQ's efforts focus on ensuring proper management of scrap-tire related activities, including the prevention of unauthorized disposal of tires.

## **Scrap tire management challenges**

TCEQ has made significant efforts towards addressing scrap tire management issues and in reducing the number of unauthorized scrap tires stockpiles in Texas. Registration and regulatory requirements are designed to facilitate the safe management of tires in the state and minimize any adverse impacts to human health and the environment.

TCEQ's regional offices routinely monitor for compliance with applicable used/scrap tire regulations and conduct periodic enforcement activities to address violations. The TCEQ staff participates in outreach efforts and educational events to communicate with local governments, industry organizations, regulated entities, and other stakeholders regarding the safe management of scrap tires.

Ongoing challenges and opportunities that offer direction for future progress include:

- funding cleanup efforts for existing and newly created tire stockpiles
- expanding existing markets or developing new markets and end-users where needed including transportation-related uses
- minimizing the illegal dumping of scrap tires
- improving compliance with TCEQ scrap tire regulations
- establishing a pre-approval process for large beneficial use projects using tires

## Unauthorized scrap tire sites in Texas

The TCEQ maintains a list of known unauthorized scrap tire sites in the state. The attached illustration includes these sites on a map of Texas along with information on the approximate quantity of tires. The number of tires at such sites range from a few hundred to a few million, for a total of approximately 16 million tires.

Unauthorized scrap tires can broadly be categorized as:

- Newer, generally-smaller, unauthorized scrap tire piles that come to the TCEQ's attention; and
- Legacy, generally-larger, well-documented scrap tire piles that may have been registered at one time.

