# Scrap Tire Facility Percentage of Turnover: Guidance Document

Delaware Department of Natural Resources and Environmental Control,
Compliance and Permitting Section

This guidance document is intended to help you calculate the actual percentage of turnover for your scrap tire facility based on the January 1st scrap tire inventory. Pursuant to Delaware's *Regulations Governing Solid Waste* (DRGSW) § 12.7.1.6, during each calendar year, a scrap tire facility must remove at least 75% of the January 1st scrap tire inventory to be in compliance with the regulation.

To complete the calculation, you will need to gather your scrap tire records and determine your January 1st accumulated scrap tire inventory. Next, you will need to determine the total number of scrap tires transported offsite to an authorized treatment, storage, disposal, or recycling facility (TSDRF) during the same calendar year.

Please be aware that scrap tire shipping and inventory records as well as documentation demonstrating percentage of turnover are required to be maintained for a period of three (3) years and made available for inspection by the Department upon request.

Below are three (3) examples demonstrating how to calculate the percentage of turnover by number, weight (PTE*) or volume (cubic feet).

**Calculating the Scrap Tire Facility 75% Percentage of Turnover Requirement:**

How to calculate: Divide the amount of scrap tires transported to a TSDRF by the January 1st scrap tire inventory (same calendar year) and multiply by 100 to get the percentage turnover.

$$\frac{\text{Amount of scrap tires transported to TSDRF}}{\text{January 1st scrap tire inventory}} \times 100 = \%\ \text{turnover}$$

Note: If the percentage of turnover is below 75%, the owner/operator is out of compliance and will need to contact DNREC CAPS.

**Example #1: Unit of Measure: Number of Scrap Tires (one tire size)**: You have 500 scrap passenger car tires in your scrap tire facility on January 1st. During the calendar year, you removed 375 scrap passenger tires and sent them to an authorized TSDRF. The calculation is as follows:

1. January 1st inventory: 500 scrap passenger tires.
2. Total scrap tires transported to a TSDRF: 375 scrap passenger tires.
3. Percentage of turnover calculation: **(375 ÷ 500) X 100= 75%**

   *Which meets the requirement of DRGSW §* 12.7.1.6.

*** PTE definition**: A PTE, passenger tire equivalent, is a conversion measurement using the assumption that one passenger car tire is equal to 25 pounds. A tire weighing more than 25 pounds shall be evaluated by dividing its total weight in pounds by 25 pounds to equal the number of PTEs.

**Example #2**: **Unit of Measure: Weight (PTE, mixed tire sizes)**: You have 250 scrap passenger tires and 250 scrap semi-truck tires, each weighing 90 lbs., in your scrap tire facility on January 1st. During the calendar year, you removed 125 scrap passenger tires and 125 scrap semi-truck tires and sent them to an authorized TSDRF. The calculation is as follows:

1. January 1st inventory of scrap semi-truck tires: 250 scrap semi-truck tires

2. Calculate the scrap semi-truck tires weight (lbs.): 250 tires X 90 lbs./tire = 22,500 lbs.

3. Convert lbs. to PTE: (22,500lbs. ÷ 25 lbs.) = **900 PTEs**
   Reminder: 1 PTE = 25 lbs.

4. January 1st inventory of scrap passenger tires: 250 scrap passenger tires = **250 PTEs**

5. Total January 1st scrap tire inventory (all tire sizes) = 900 PTEs + 250 PTEs = **1,150 PTEs**

6. Determine total weight of all scrap tires transported to an authorized TSDRF:
   a. 125 scrap semi-truck tires X 90lbs./tire = 11,250 lbs. or (11,250lbs. ÷ 25 lbs.) = **450 PTEs**
   b. 125 scrap passenger tires = **125 PTEs**
   c. Total transported to TSDRF: 450 PTEs + 125 PTEs = **575 PTEs**

7. Percentage of turnover calculation: **(575 PTEs ÷ 1,150 PTEs) X 100 = 50%**

   *Which does NOT meet the minimum 75% turnover compliance requirement of DRGSW § 12.7.1.6. The owner/operator is out of compliance and will need to contact DNREC CAPS.*

**Example #3: Unit of Measure: Volume (Cubic Feet, one tire size):** You store scrap passenger tires in a fenced in storage area measuring 8 feet wide by 40 feet long by 7 feet high. The January 1st inventory was measured as 8 feet wide by 20 feet long by 7 feet high. During the calendar year, you filled up the storage area twice and transported all the tires to a TSDRF. The percentage of turnover calculation is as follows:

1. January 1st inventory: (8ft X 20ft X 7ft) = **1,120 cubic feet**

2. Determine total volume of scrap tires transported to an authorized TSDRF:
   (8ft X 40ft X 7ft) X 2 loads shipped = **4,480 cubic feet**

3. Percentage of turnover calculation: **(4,480 cubic feet ÷ 1,120 cubic feet) X 100 = 400%**

   *Which meets the requirement of DRGSW § 12.7.1.6.*

For information about Scrap Tire Facilities, please visit the website at:
http://www.dnrec.delaware.gov/dwhs/Info/Pages/ScrapTire.aspx

For more assistance, contact DNREC, Compliance and Permitting Section at (302) 739-9403.