



Standards for the Use of Tire Chips in On-Site Wastewater Treatment Systems

Chips produced from recycled tires may be used as coarse aggregate in on-site wastewater treatment systems and may be substituted for mineral aggregate on a one-for-one volumetric basis. When used in the application, chips must conform to the requirements below.

Chip Specifications

1. Chips are to be around two inches in size and may range from one-half-inch to a maximum of four inches in any one dimension.
2. Exposed wire may protrude no more than one-half-inch from the chip
3. At least 95 percent of the aggregate by weight shall comply with the above specifications.
4. Fines, defined as any material less than two millimeters in size, shall not exceed two percent by weight. Fines settle to the bottom of the wastewater treatment system and contribute to the clogging or blocking of infiltrative surfaces. Examples of fines include dust, dirt, grit and similar substances.
5. Tire chips for use in on-site wastewater treatment systems shall be shipped, stored and handled in a manner that prevents contamination by soil or other foreign material.

Installation Procedures

1. There are no changes to construction permit application and permit requirements.
The proposed use of tire chips must be indicated on construction permit applications and approved by the local on-site wastewater treatment administrative authority. Tire chips cannot be substituted for another material or product in systems designed by a professional engineer unless the professional engineer approves the change in writing prior to approval by the local administrative authority.
2. Standard siting requirements for on-site wastewater treatment systems will apply, except that tire chips meeting the above specifications may be substituted for gravel or crushed stone. The minimum vertical separation requirements of the Minimum Construction Standards may not be reduced based on the use of tire chips.
3. On-site wastewater treatment system sizing must be based on the same criteria as systems using gravel or crushed stone. Also, absorption trench construction must comply with the Minimum Construction Standards, 19 CSR 20-3.060(5)(A)5. through 10.
4. No soil can be allowed to contaminate the tire chips during installation. Tire chips must be covered with a geotextile fabric or other approved barrier material prior to backfilling the soil absorption trench to help prevent soil from infiltrating through the aggregate.

5. All tire chips not used in the on-site wastewater treatment system must be removed from the site by the installer. Clean, unused tire chips may be used in another on-site wastewater treatment system; alternatively, unused chips must be disposed of at a permitted solid waste disposal facility.

Note: It is illegal to burn tires in Missouri except at facilities approved by the Missouri Department of Natural Resources. Uncontrolled burning of tires can pollute the air, water and groundwater.

6. Operation and maintenance requirements will be the same for on-site systems using tire chips as for systems using gravel or crushed stone.

For more information

Missouri Department of Natural Resources
Solid Waste Management Program - Scrap Tire Unit
P.O. Box 176
Jefferson City, MO 65102
(573) 526-3909 or toll-free 1-800-361-4827
www.dnr.mo.gov/env/swmp/tires/tirelist.htm

Missouri Department of Health and Senior Services
On-site Sewage Program
P.O. Box 570
Jefferson City, Missouri 65102
(573) 751-6400
www.dhss.mo.gov/Onsite