



# COMMONWEALTH of VIRGINIA

Department of Health

RANDOLPH L. GORDON, M.D., M.P.H.  
COMMISSIONER

August 21, 1997

To: District Environmental Health Managers  
District Health Directors  
OEHS Staff

From: Donald J. Alexander, Director   
Division of Onsite Sewage and Water Services

Subject: Use of Recycled Tire Chips

**GMP #91**

The Department of Environmental Quality (DEQ) has requested that VDH consider the use of recycled tire chips as a replacement for gravel in drainfield systems. Disposing of used tires has been problematic and DEQ has determined that their use as an aggregate material in drainfields could provide a beneficial use for a material that has been an environmental liability. This GMP authorizes the use of tire chips as an alternative aggregate in lieu of stone in gravel absorption trenches under the conditions in Appendix I.

Procedurally, no permit changes will be necessary. Any drainfield installer may, at their discretion, substitute chipped tire aggregate meeting the attached specifications, for gravel in any non-proprietary subsurface absorption system designed by the Department which requires aggregate. In general these will be conventional drainfield systems, pressure dosed systems, and low pressure distribution systems. This GMP does not include proprietary systems such as Puraflo™, the Aquarobic Filter Bed, or any other proprietary system with current or future approval. Systems designed by professional engineers (with either formal or informal plans) are excluded from this GMP unless the engineer specifies, or otherwise approves (in writing) chipped tire aggregate.

When an environmental health specialist (EHS) inspects a system where chipped tire aggregate has been used, the installer will request the EHS to sign a certification that tire chips were used. Department field staff are directed to sign the DEQ-VDH form entitled "Certification of Use of Tire Chips in a Residential Septic Drainfield" in the appropriate block, when it appears that tire chips were used to construct the system and after the form has been properly filled out and signed by the contractor and the homeowner. Incomplete forms should not be signed. The EHS should also note the permit number and enter the date of the inspection. The blue copy of the form is to be retained by the EHS and filed with permit. A copy of this form is attached.

Attachments

**GMP #91**  
Onsite - Recycled chipped tire aggregate

GMP #91  
Appendix I

**Application**

1. Tire chips are approved by the Virginia Department of Health (VDH) and the Virginia Department of Environmental Quality (DEQ) for use as coarse aggregate in non-proprietary subsurface absorption fields and may be substituted for stone aggregate on a one-for-one basis, volumetrically.
2. Trench design, installation, and location are to remain unchanged. Untreated building paper or a geotextile (synthetic) fabric cover shall be provided to prevent soil infiltration.
3. Each installation must have a valid VDH permit, must be authorized by the property owner and certified by VDH and the installation contractor using the 4 part VDH-DEQ Certification of Use of Tire Chips in a Residential Septic Tank Drainfield system.
4. Proprietary systems and systems designed by a professional engineer are not automatically authorized for use. Changes to the aggregate must be approved in writing by either the manufacturer or the professional engineer prior to approval.

**Chip Specifications**

1. Chips are to be a nominal 2 inches in size and may range from one-half ( $\frac{1}{2}$ ) to a maximum of four (4) inches in any one dimension.
2. Exposed wire may protrude no more than one-half ( $\frac{1}{2}$ ) inch from the chip.
3. At least 95% of the aggregate by weight shall comply with the above specifications.
4. Fines are defined as any material less than 2 mm in size and are prohibited.

COMMONWEALTH OF VIRGINIA  
VIRGINIA DEPARTMENT OF HEALTH  
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
CERTIFICATION OF USE OF TIRE CHIPS IN A RESIDENTIAL SEPTIC  
DRAINFIELD

OWNER'S PROPERTY INFORMATION

Drainfield Site Location \_\_\_\_\_

Name \_\_\_\_\_

VDH Permit Number \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone( ) \_\_\_\_\_

CONTRACTOR INFORMATION

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone ( ) \_\_\_\_\_

Federal Identification Number \_\_\_\_\_

State Contractor License Number \_\_\_\_\_

Quantity of Tire Chips in this Installation  
Cubic Yards \_\_\_\_\_ or Tons \_\_\_\_\_

PROPERTY OWNER'S AUTHORIZATION

I have authorized the use of tire chips in the construction of the septic drainfield on my property. The name of the contractor and the location of my property are correct as shown above.

Signature of Property Owner \_\_\_\_\_

Date \_\_\_\_\_

CONTRACTOR'S CERTIFICATION

I certify that I installed the quantity of tire chips stated above and the tire chips used in this installation meet the Standards of Use of Tire Chips in a residential septic drainfield (DEQ 04/97).

Signature of Contractor \_\_\_\_\_

Date \_\_\_\_\_

ENVIRONMENTAL HEALTH SPECIALIST'S CERTIFICATION

I certify that tire chips were utilized in the drainfield of the septic system installed per Permit # \_\_\_\_\_

Signature of Environmental Health Specialist \_\_\_\_\_

Date \_\_\_\_\_

Submit white copy:  
Waste Tire Program  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240-0009  
White-DEQ

Va. Department of Health  
Regional Office \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Blue-DOH

Pink-Contractor

Goldenrod-Owner

(DEQ 04/97)