



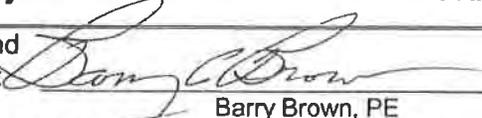
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL COMPLIANCE OFFICE  
SUITE 900 - JAMES K. POLK BUILDING  
505 DEADERICK STREET  
NASHVILLE, TENNESSEE 37243-0334

**TDOT STANDARD OPERATING PROCEDURE - ENVIRONMENTAL**

NO.  
003

Subject: **AEROSOL CAN PUNCTURING SYSTEM**

Reviewed and  
approved by:

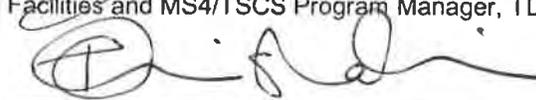


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Facilities and MS4/TSCS Program Manager, TDOT Environmental Compliance Office

05-02-17

Date



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Environmental Bureau Chief, TDOT Environmental Planning Bureau

5-5-17

Date

Status: Revised and re-approved with minor changes.

Version 4 – Replaces  
Version 3 dated April 2016

## 1.0 PURPOSE AND SCOPE

According to TDOT policy, all waste aerosol cans (i.e., empty and unusable) at TDOT facilities must be punctured and drained and collected for disposal. This policy ensures that there are no waste aerosol cans that are unpunctured and require management as hazardous waste.

Certain products such as pesticides (e.g., wasp spray) must be managed in accordance with the labeling requirements. Empty aerosol cans that may not be punctured in accordance with the label may be disposed of in the trash. In the event a can of such material is found to not be empty, it must be collected for proper disposal in a segregated container.

TDOT Region and District facilities have currently utilize a drum-mounted Aerosol Can Puncturing Systems to be used to remove residual propellants from aerosol cans. The system consists of two components and is designed for use with 20-gallon, 30-gallon or 55-gallon steel drums (closed top) fitted with standard large and small bung openings in the top. The first component is the can puncturing device itself, which fits into the 2-inch bung opening, and the second is the filter assembly, which fits into the 3/4 -inch bung opening. The can puncturing device holds the can in place while a hole is punched in it and the can contents discharge and drain into the collection drum.

The filter assembly captures the aerosol particles in escaping air/gas and allows them to coalesce and drain back into the collection drum. The process generates three waste streams:

1. A propellant/product liquid (i.e., “aerosol residues”), which must be managed as a hazardous waste.
2. The emptied can carcasses, which are nonhazardous and may be crushed and managed as special waste, or may be recycled as scrap metal (dependent upon recycling opportunities).
3. Spent aerosol filters, which must be managed as hazardous waste. Note: Spent aerosol filters should be replaced with new aerosol filters at frequencies specified by the manufacturer.

TDOT waste management profiles have been prepared for each of these waste streams.

The Aerosolv® Model 7000 Can Recycling System is the aerosol can puncturing system used at TDOT facilities. As a companion to this SOP, the instruction manual for the Aerosolv® 7000 unit is attached. However, should a different aerosol can recycling system be in use at any TDOT facility, consult the corresponding instruction manual for unit operation.

Please also note the following for aerosol can puncturing operations:

1. TDOT aerosol cans primarily contain petroleum hydrocarbons and, as such, these residues may be commingled in the aerosol residue waste stream (see Table 1-3, page 13 of the instruction manual). Aerosol cans containing alkaline and acidic products should not be punctured and combined in this same drum; they must be collected separately. For more information on other compatible and incompatible aerosol products, see the instruction manual or contact the Environmental Compliance Office.
2. Before puncturing any aerosol can, the drum mounted can puncturing system must be properly grounded by a qualified electrician.
3. After puncturing an aerosol can, leave the can in the sleeve for 20–30 seconds to fully drain the can into the residue drum.
4. When not in use, the residue drum must remain “closed” at all times for regulatory compliance and for safety. To achieve a closed container, either clamp the lid down on the empty plastic sleeve, or clamp the lid down on top of an aerosol can in the sleeve.
5. The aerosol residue drum should be disposed of every two years, or once attaining 70% capacity.