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

TDOT STANDARD OPERATING PROCEDURE - ENVIRONMENTAL

NO.
004

Subject: **DISCARDED AUTOMOTIVE FUEL TANKS**

Reviewed and
approved by:

05-02-17

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Date
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5.5.17

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1.0 PURPOSE AND SCOPE

This Standard Operating Procedure addresses the procedures for handling discarded automotive fuel tanks (DAFTs). DAFTs may be found along highway right-of-ways (ROWs) or may be generated from TDOT fleet maintenance activities. Like other roadside debris, DAFTs must be removed to ensure the safety of motorists, pedestrians, and work crews, and to prevent/minimize environmental contamination. The procedures outlined below serve to provide for (1) TDOT employee safety, (2) environmental protection, and (3) cost-effective disposal of such DAFTs.

Warning: DAFTs may be dangerous due to the fuel or fuel residues they may contain. Though a DAFT may contain no liquids, there may still be sufficient gasoline vapors present to cause ignition or explosion. When handling DAFTs, take the standard safety precautions for handling gasoline as outlined in standard Material Safety Data Sheets for gasoline. For example, no smoking is permitted when handling DAFTs. Additionally, protection against cuts from sharp metal edges requires wearing work gloves. Finally, DAFTs found on roadsides may be located in areas with steep slopes, uneven surfaces, and/or heavy vegetation. Use appropriate care and precautions when accessing these areas.

2.0 PROCEDURE FOR HANDLING DAFTS ON THE ROADSIDE

Personnel responsible for removing DAFTs from highway ROWs or other TDOT-managed properties should have the following equipment available:

- An open-bed truck by which the DAFT can be transported without being enclosed.
- Work gloves.
- Disposable latex or nitrile gloves.
- A sending unit wrench, if available, for removing the fuel tank sending unit.
- A hammer and flat-bladed screwdriver.
- A safety can (2- to 5-gallon size) which is appropriate for holding flammable liquids.
- Imbiber Beads mix.
- A hand-squeeze pump or other hand-operated pump to safely transfer flammable liquids from the DAFT to the safety can.

DAFTs found on roadsides should be handled as follows:

1. Put on disposable latex or nitrile gloves to protect from fuel tank contents; then place work gloves over the disposable latex or nitrile gloves.
2. Initially inspect the DAFT to determine if it contains liquid. This will typically involve lifting one end of the tank to see if liquid movement within the tank is felt or heard. The DAFT should be carefully managed to avoid spillage of tank contents.
3. Remove the fuel tank sending unit (see picture at right) by using an appropriate fuel tank sending unit wrench. If an appropriate wrench is not available, a flat-bladed screwdriver and hammer may be used to gently remove the locking ring that holds the fuel sending unit in place. Once the locking ring is removed, the sending unit should readily lift out to leave a wide opening for accessing the contents. Sharp blows that might generate sparks should be avoided.
4. Once the fuel tank sending unit is removed, remove the liquid contents by transferring them into the flammable liquid safety can using the hand-operated pump. Remove as much liquid as possible, although some small amount may remain.
5. Once emptied of liquids to the extent practicable, pour the Imbiber Beads mix into the opening left by the fuel sending unit assembly (see picture at the right). Pour in enough Imbiber Beads mix to cover the bottom of the DAFT with a thin layer, or enough to absorb all remaining liquid. To do this, pour the bead mix into the DAFT and then move the DAFT from side to side until the bottom of the DAFT is covered. Once the bottom of the DAFT has been adequately covered with a thin layer of the Imbiber Beads mix, the DAFT should be allowed to sit for a minimum of ten minutes. This allows the Imbiber Beads mix time to absorb any remaining liquid in the DAFT and reduce the vapors to safe levels. After the ten minutes, the DAFT may be loaded into the bed of the truck and transported to the appropriate TDOT facility, equipped to handle DAFTs. If it is raining or expected to rain, the DAFT should be covered or positioned so that rainwater will not enter the tank through its various openings.



3.0 PROCEDURE FOR HANDLING DAFTs AT THE TDOT GARAGE

Once the DAFT has been brought from the field back to a TDOT Garage, it should be drained and vented and sent for recycle as scrap metal **Note:** in the event the local scrap metal vendor will not accept a vented and drained DAFT, it should be discarded with accumulated roadside trash. Fuel cells (plastic tanks) should be drained and cut in half and discard with roadside trash.

1. Drain the DAFT as stated above and vent it. Proper venting may require cutting or puncturing the DAFT using non-sparking tools to allow air flow.
2. Use Imbiber Beads mix or other absorbent material to clean up any liquids released during draining and venting as necessary. Finally, sweep up, containerize, and manage any absorbent waste with appropriate (hazardous or special waste) petroleum-contaminated floor sweepings.
3. If it is not feasible to immediately drain and vent the DAFT, store in a manner that will prevent rainwater from getting into the DAFT. However, for safety, do not store in an enclosed space or near a source of ignition.

4.0 PROCEDURE FOR MANAGING LIQUID WASTES GENERATED FROM DAFTs

The liquid transferred from the DAFT to the safety can should be managed as either waste gasoline or waste diesel, depending upon the contents. Waste gasoline is a hazardous waste and may be added to the waste gasoline drum at your facility. Similarly, waste diesel, a non-hazardous, special waste, may be combined with waste diesel at the facility. Should there be no appropriate waste fuel container available, one must be established. Label and date the container in accordance with TDOT waste management procedures.