

You are here [DEQ Home](#) : [Policies](#) : PM98-5

## DEQ Policy Memorandum

Policy No.: PM98-5

### Used Tire Policy

#### STATEMENT OF PURPOSE

The disposal of used tires, in any form, in landfills and the incineration of those tires is prohibited, except as provided by permissible methods of waste tire management listed in §39-6504(3) Idaho Code, or in accordance with rules and regulations of the Department of Health and Welfare. Currently, there exists confusion over what uses of used tires are approved by the Waste Tire Act, Idaho Code §39-6504, and what beneficial uses DEQ has approved. The Department has not adopted rules addressing used tire beneficial uses. Historically, Idaho law considers used, recyclable tires as "waste tires." Therefore, this policy uses the terms *waste tires* and the more appropriate term *used tires*, interchangeably.

The purpose of this policy is to establish a procedure for demonstrating alternative beneficial uses of used tires as specified in Idaho Code §39-6504(3)(I).

#### STATEMENT OF POLICY

**Authority:** Waste Tire Collection Sites, Idaho Code Section 39-6503, states that "An owner or operator of a waste tire collection site, . . . , shall register with the division and provide the division with information concerning the site=s location and size and the approximate number of waste tires which are stored at the site and shall initiate steps to comply with the provisions of this chapter and other local, state and/or federal authorities." According to Idaho Code §39-6501(7), "Waste tire collection site" means a site where used tires are collected before being offered for recycling or reuse and where more than fifty (50) tons of used tires (approximately 5,000 light utility tires) are kept on site on any day. Registration as a used tire collection site is required if storing greater than 50 tons (approximately 5,000 light utility tires) of used tires.

The Waste Tire Act, Idaho Code §39-6504(3), limits the use of used tires to the following beneficial uses:

- 1) Retreading.
- 2) Constructing collision barriers.
- 3) Controlling soil erosion only if used in accordance with approved engineering practices.
- 4) Chopping or shredding prior to reuse.
- 5) Grinding for use in asphalt or as a raw material for other products.
- 6) Using as playground equipment.
- 7) Incinerating or using as a fuel or pyrolysis if permitted by law, regulations or ordinances relating to burning of fuel.
- 8) Hauling to lawful out-of-state collection or processing sites.
- 9) Any other beneficial use, reuse or recycling of waste tires, chips or similar material from waste tires generated in Idaho which meets the criteria set forth by the division.

Idaho code 39-6504(4) states that "The Board of Health and Welfare (The Board) by rule and regulation may authorize other methods of management and/or disposal of waste tires."

**Current Status:** Currently the state solid waste rules only address used tire reimbursement under the expired Waste Tire Grant account. The current solid waste rules do not include alternative beneficial uses of used tires.

**Approved Beneficial Uses of Used Tires:** The only alternative beneficial use of used tires approved by DEQ has been for chipped tires (< 5-inch minus) as an alternative daily cover at municipal solid waste landfills. Policy Memorandum SWF-1 (May 15, 1996) describes the alternative daily cover policy that was adopted under the authority of the Idaho Solid Waste Facilities Act.

**Disapproved Uses of Used Tires:** 1) Land filling in any form other than for alternative daily cover. See Idaho Code 39-6504(1) and Policy SWF-1. 2) Placement of used tires in waterways below the high water mark. Use of tires, for bank stabilization under the Corps of Engineers Nation Wide Permit (NWP) program, was prohibited by DEQ in a January 27, 1997 water quality certification letter (NWP-13). Regional condition #2 for NWP-13 does not authorize the use of tires as a type of non-vegetative material for bank stabilization (car bodies are also not authorized).

Acute bioassay (static) test results on new and used tires in aquatic environments "clearly show that scrap tires leach materials that are acutely toxic to rainbow trout, but are not to fathead minnows or *Daphnia magna*."<sup>1</sup> Flow-through testing has had mixed results for toxicity to rainbow trout; very low flow tests have demonstrated toxicity to trout and higher flow rates or longer time periods to start testing have resulted in no toxicity to trout in acute (96-hour) bioassay tests. "Over time, tires are depleted of chemical substances by a continuous process of leaching."<sup>2</sup> The suspected tire water toxicant is a nonvolatile mixture of polar and nonpolar organic compounds such as aromatic amine compounds.<sup>2</sup> As a chemical class, aromatic amines have significant environmental hazards and are easily oxidized to compounds very toxic to fish. Aromatic amines may comprise up to 3% by weight of an automobile tire and are used as an additive to protect tires from aging and weathering. The aromatic amines migrate to the surface of the tire as part of the chemical protection of the tire and as a result leach to the aquatic environment. Eventually the compounds are depleted and the toxicant release rate would decrease over time. This was observed in the series of tests conducted by Abernethy, et.al. 1996. Zinc and benzothiazoles also leach from tires and zinc is suspected as major toxicant in tire crumb toxicity tests with *Daphnia magna*.

Whole tires did not leach toxic levels of zinc in the acute bioassay (96-hour) test. Abernethy, et.al. (1996) recommend the use of more sensitive chronic sublethal tests (life cycle) to be the next logical step for further studies at lower more realistic exposure levels over longer periods.

<sup>1</sup> Kellough, R.M., 1991, B.A.R. Environmental, Inc., 1992, and Abernethy, 1994.  
<sup>2</sup> Abernethy, et.al., 1996.

## **PROCESS FOR APPROVAL OF ALTERNATIVE BENEFICIAL USES OF USED TIRES.**

**Application Process:** Any owner or operator of a waste tire collection site is

responsible for the reuse or disposal of used tires collected at the site. Applications for alternative beneficial uses of used tires may be sent to the DEQ for consideration by DEQ and a review committee. The following information should be part of the application:

- 1) Operational concerns to be addressed (IDAPA 16.01.06.004. and 005),
- 2) Long term maintenance concerns,
- 3) Fire control,
- 4) Vector control,
- 5) Demonstration of beneficial use (short and long term practical experience),
- 6) Siting considerations, and
- 7) Federal, state, or local laws or rules, or any other applicable impact on public health or the environment.

Any person may complete and submit to DEQ an application for determination of a proposed alternative beneficial use status for used tires.

**Review Process:** A review committee will be appointed by the Administrator to review the application for determination of alternative beneficial use of used tires. The review committee will be composed of representatives from the Division, the district health department, and industry. The review committee may approve the proposal, or condition the proposal or reject the proposal. The review committee will forward their recommendation to the Administrator. The Administrator will review the recommendation and application with the Board of Health and Welfare to determine if the Board would like the Division to proceed with the adoption of a rule. An approved or conditionally approved proposal will be adopted through the IDAPA rulemaking process as required in '39-6504(4). The Administrator will notify the applicant of the decision to proceed with rulemaking or to reject the proposal.

**IMPLEMENTATION:**

This policy shall be effective immediately.

DATED this Day of , 1998.

WALLACE N. CORY, P.E.  
ADMINISTRATOR