

Fact Sheet on Non-Hazardous Secondary Materials Determinations and Scrap Tires¹

Overview

Why does it matter whether scrap tires are a solid waste or not?

- Scrap tires that are solid waste must be processed when combusted as fuel.
- Scrap tires that are NOT solid waste can be combusted as fuel without first being processed.

What determines whether scrap tires are solid waste or not?

- Scrap tires that are discarded are solid waste.
- Scrap tires that remain within the control of the generator and meet the legitimacy criteria are NOT solid waste.

NHSM Scrap Tires

The Non-Hazardous Secondary Materials (NHSM) regulations found in title 40 of the Code of Federal Regulations (40 CFR Part 241) identify which of such materials are and are not solid wastes when combusted as fuels.

Solid Waste? Or not?

Not Solid Waste: NHSM used as a fuel in combustion units that remain within the control of the generator and that meet the legitimacy criteria are not solid wastes when combusted as fuel.

The legitimacy criteria (40 CFR section 241.3(d)(1)) states that the NHSM must:

- Be managed as a valuable commodity
- Have a meaningful heating value and be used as a fuel in a combustion unit that recovers energy
- Contain contaminants or groups of contaminants at levels comparable to or lower than traditional fuels that the combustion unit is designed to burn

Solid Waste: Discarded NHSM that does not remain within the control of the generator is a solid waste.

However, fuel that results from the processing of discarded NHSM that meets the legitimacy criteria is not solid waste. After processing, this fuel would be considered a new product which has not been discarded and therefore not a solid waste. See Volume 76 of the Federal Register (FR) page 15537.

Established Tire Collection Programs

Scrap tires that are not discarded and managed under an established tire collection program are a categorical non-waste fuel (40 CFR section 241.4(a)(1)). These tires are considered non-waste because they have not been discarded and they meet the legitimacy criteria (76 FR 15534). Since such tires are not solid waste,

¹ Disclaimer: The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

they do not need to be processed when combusted as fuel.

Abandoned Tires



Figure 1: Abandoned scrap tire pile

Abandoned tires (often found in abandoned scrap tire piles) have been discarded and do not remain within the control of the generator, and thus do not meet the criteria set forth in 40 CFR section 241.3(b)(1). They are not being managed as a valuable commodity and are solid waste. Even though abandoned tires could be beneficially reused whole as fuel, the statutory definition of solid waste under the Resource Conservation and Recovery Act (RCRA) does not allow this. A discarded tire does not lose its status as a waste solely because it is burned for energy recovery (76 FR 15476).

Tire Processing

To receive non-waste status under NHSM, 40 CFR section 241.3(b)(4) requires discarded tires to be processed and transformed into a material that is legitimately used as a fuel. This fuel is

called TDF (tire-derived fuel). Simply shredding or quartering whole tires, or removing some dirt, is not adequate to produce a non-waste product for use as fuel. To be considered sufficiently processed, metal must be removed from the abandoned scrap tires at the level of wire removal that is specific to the handling concerns and needs of a combustion unit. Scrap tires that have been chipped or shredded, sorted, and at least 90 percent de-wired are generally considered sufficiently processed (76 FR 15498).

However, this may not be the only standard, to the extent that other unit types require different size TDF and levels of metal removal. In fact, cement kilns are a type of combustion unit where less metal removal from the scrap tires can still be considered sufficiently processed. Cement kilns can manage TDF with less metal removal because kilns can utilize metal contained in scrap tires as a component in their manufacturing process. Metal removal as low as 2-10 percent may be considered a sufficient alternative when scrap tires are burned in a cement kiln.²



Figure 2: Example of processed tires

² EPA 2019, Beneficial Reuse of Scrap Tires as Tire Derived Fuel (TDF), Letter from Barnes Johnson, Director, Office of Resource Conservation and Recovery, to Earl Lott, Director, Waste Permits Division, Texas Commission on Environmental Quality, February 2, 2019, RCRA Online Number 14924.