

## Summary of Definition of Solid Waste – Final Rule

EPA has not listed specific non-hazardous secondary materials as either wastes or non-wastes in regulatory language, but is rather specifying the criteria to be used to determine if these secondary materials are or are not solid wastes.

### **Statutory Authority**

The U.S. Environmental Protection Agency (EPA) is promulgating these regulations under the authority of sections 2002(a)(1) and 1004(27) of the Resource Conservation and Recovery Act (RCRA), as amended, 42 USC 6912(a)(1) and 6903(27). Section 129(a)(1)(D) of the CAA directs EPA to establish standards for Commercial and Industrial Solid Waste Incinerators (CISWI), which burn solid waste (section 129(g)(6) of the Clean Air Act (CAA), 42 USC 7429). Section 129(g)(6) provides that the term, solid waste, is to be established by EPA under RCRA. Section 2002(a)(1) of RCRA authorizes the Agency to promulgate regulations as are necessary to carry out its functions under the Act. The statutory definition of “solid waste” is provided in RCRA section 1004(27).

### **Categories of Materials Evaluated**

Non-hazardous secondary material (NHSM) fuels or fuel groups: the biomass group (pulp and paper residuals, forest derived biomass, agricultural residues, food scraps, animal manure, and gaseous fuels); construction and demolition materials (building related, disaster debris, and land clearing debris); scrap tires; scrap plastics; spent solvents; coal refuse; waste water treatment sludge; used oil; auto shredder residue; purification process byproducts; and resinated wood products.

NHSM ingredients: blast furnace slag; cement kiln dust (CKD); the coal combustion residuals (fly ash, bottom ash, and boiler slag); foundry sand; silica fume; and secondary glass material.

### **Traditional Fuels (do not need to meet legitimacy criteria)**

Traditional fuels are those fuels that have been historically managed as valuable fuel products rather than being managed as waste materials. Traditional fuels include fossil fuels (e.g., coal, oil, natural gas) and their derivatives (e.g., petroleum coke, bituminous coke, coal tar oil, refinery gas, synthetic fuel, heavy recycle, asphalts, blast furnace gas, recovered gaseous butane, and coke oven gas), and cellulosic biomass (virgin wood). Additionally, alternative fuels developed from virgin materials can now be used as fuel products, including on-spec used oil, currently mined coal refuse that previously had not been usable as coal, and clean cellulosic biomass. (Clean cellulosic biomass is defined in the rule and includes forest-derived biomass, biomass crops grown for energy production, crop residues such as peanut hulls, and wood or clean biomass from fire clearance, disaster debris, land clearing or clean construction & demolition wood. To be fuels the materials must not be discarded. To be clean, they must not have contaminants at levels atypical of virgin biomass materials.)

## **Generator Control**

In order for other materials to be considered to be fuels or ingredients rather than waste materials, the materials must remain within the control of the generator and meet legitimacy criteria, unless approved for use by an off-site combustor through the EPA petition process. To be within the control of the generator, the non-hazardous secondary material must be generated and burned in a combustion unit at the generating facility or burned in a combustion unit at a facility controlled by the generator.

## **Legitimacy Criteria**

The legitimacy criteria remain unchanged from the proposal and are shown in the attachments.

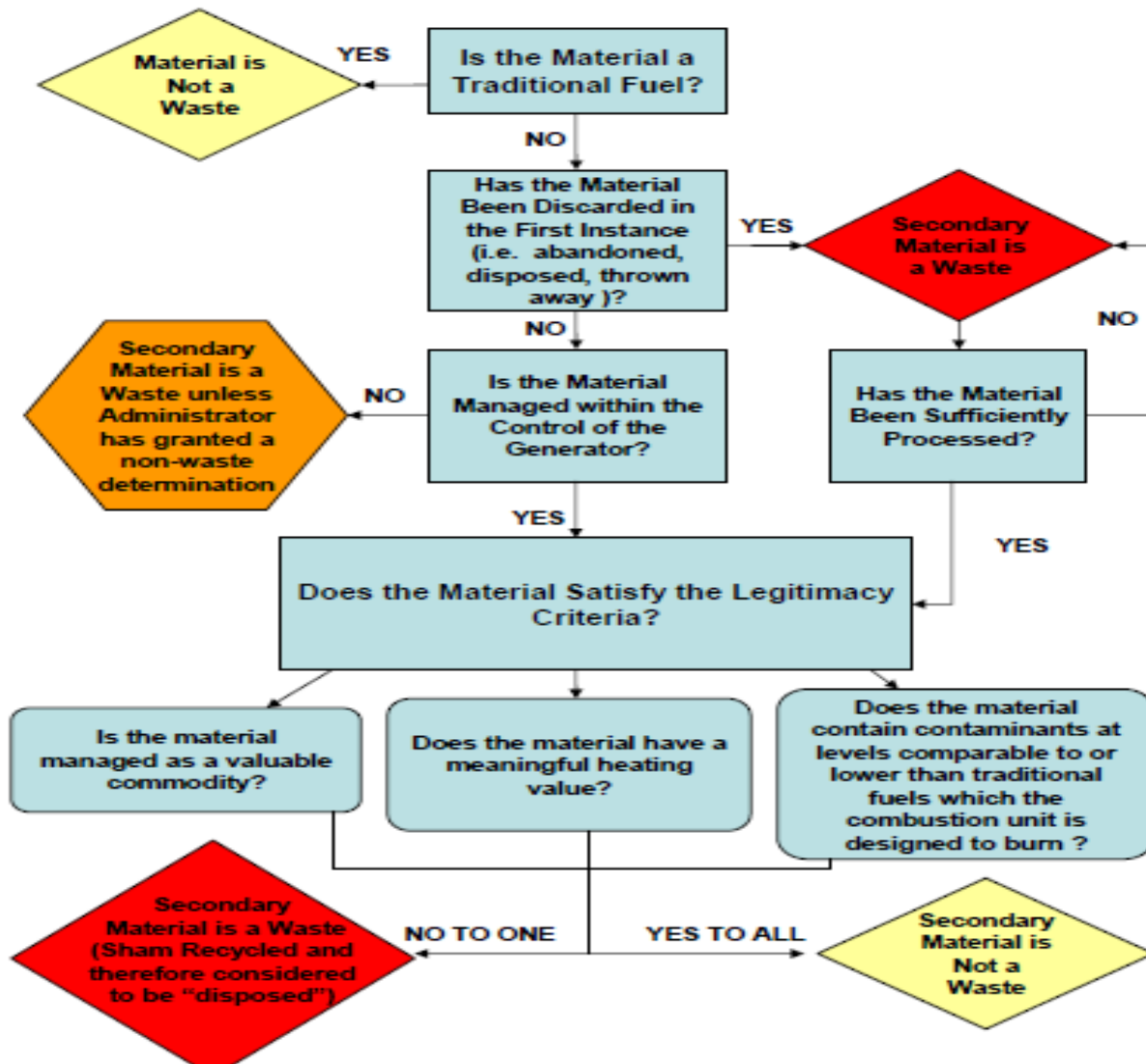
**These materials are generally not solid waste when burned in combustion units (if they meet legitimacy criteria), according to the discussion in the preamble and EPA FAQ document:**

- Clean biofuels/biogas processed from solid waste
- Scrap tires managed under an established tire collection program
- Tire-derived fuel (TDF) from processing of scrap tires removed from tire piles (shredded with steel and wire removed)
- Materials (i.e., cement kiln dust, coal ash, foundry sand) used as ingredients in manufacturing (i.e., cement kilns)
- Resinated wood residuals
- Pulp and paper sludge when burned that remain in control of the generator
- C/D wood if processed to remove debris and contaminants

**These materials are generally solid waste when burned in combustion units, according to the discussion in the preamble and EPA FAQ document:**

- Whole scrap tires from waste tire piles
- Off-specification used oil
- Sewage treatment sludge
- Contaminated construction and demolition debris

**Flow Chart for Determining Whether Non-Hazardous Materials Used as Fuel In Combustion Units are Solid Waste**

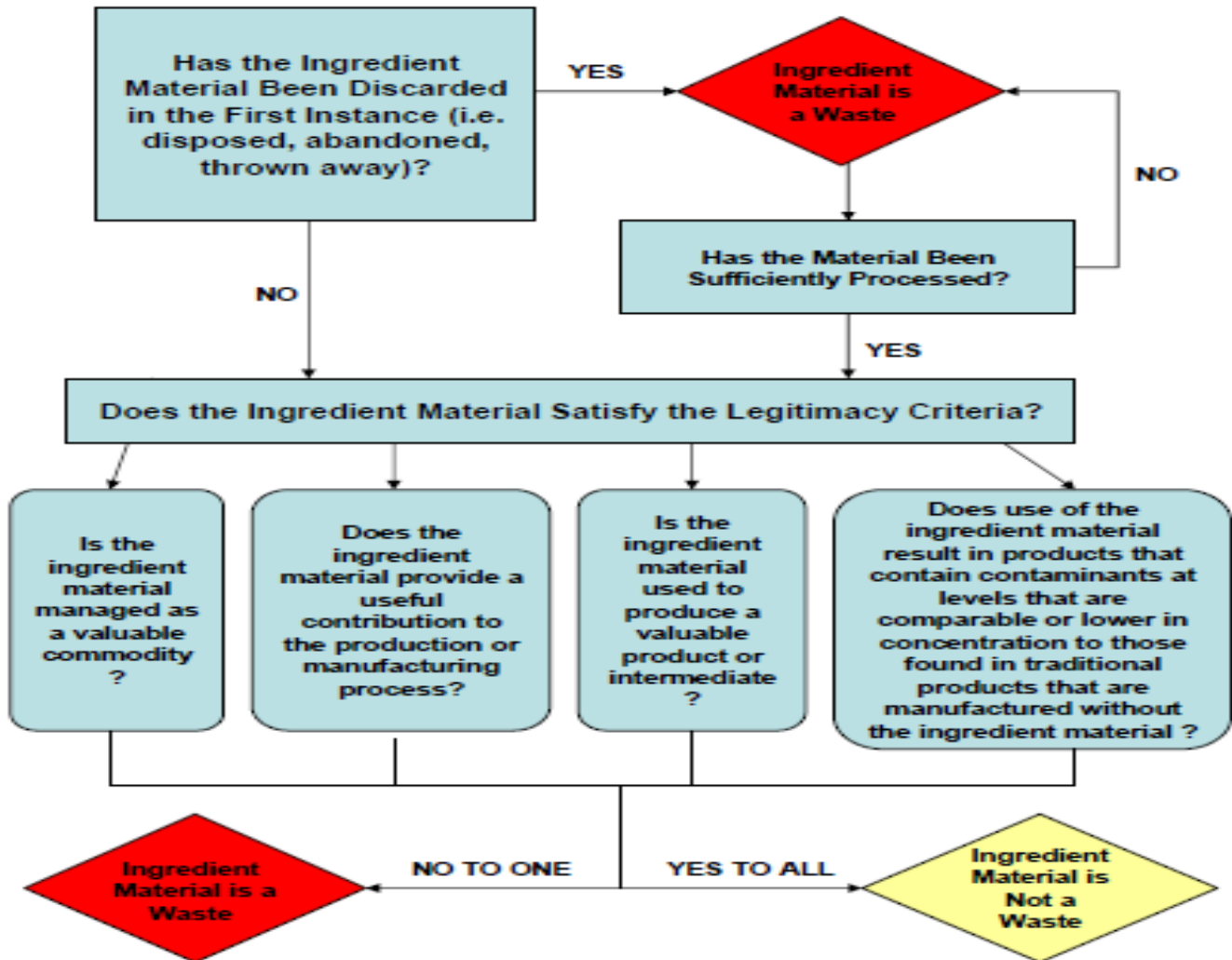


Legitimacy criteria for non-hazardous secondary materials used as a fuel in combustion units:

- i. The non-hazardous secondary material must be managed as a valuable commodity based on the following factors:
  - a. The storage of the non-hazardous secondary material prior to use must not exceed reasonable time frames;
  - b. Where there is an analogous fuel, the non-hazardous secondary material must be managed in a manner consistent with the analogous fuel or otherwise be adequately contained to prevent releases to the environment;
  - c. If there is no analogous fuel, the non-hazardous secondary material must be adequately contained so as to prevent releases to the environment;
- ii. The non-hazardous secondary material must have a meaningful heating value and be used as a fuel in a combustion unit that recovers energy.
- iii. The non-hazardous secondary material must contain contaminants at levels comparable in concentration to or lower than those in traditional fuels which the combustion unit is designed to burn. Such a comparison is to be based on a direct comparison of the contaminant levels in the non-hazardous secondary material to the traditional fuel itself.

**NOTE: In order to meet criteria iii above, you must have comparable levels of HAPs and Section 129 (a) (4) pollutants in the non-hazardous secondary material and in the fuel that would otherwise be burned in the unit.**

**Flow Chart for Determining Whether Non-Hazardous Secondary Material Ingredients Burned In Combustion Units are Solid Wastes**



Legitimacy criteria for non-hazardous secondary materials used as an ingredient in combustion units:

- i. The non-hazardous secondary material must be managed as a valuable commodity based on the following factors:
  - a. The storage of the non-hazardous secondary material prior to use must not exceed reasonable time frames;
  - b. Where there is an analogous fuel, the non-hazardous secondary material must be managed in a manner consistent with the analogous fuel or otherwise be adequately contained to prevent releases to the environment;
  - c. If there is no analogous fuel, the non-hazardous secondary material must be adequately contained so as to prevent releases to the environment;
- ii. The non-hazardous secondary material must provide a useful contribution to the production or manufacturing process. The non-hazardous secondary material provides a useful contribution if it contributes a valuable ingredient to the product or intermediate or is an effective substitute for a commercial product.
- iii. The non-hazardous secondary material must be used to produce a valuable product or intermediate. The product or intermediate is valuable if:
  - a. The non-hazardous secondary material is sold to a third party, or
  - b. The non-hazardous secondary material is used as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process
- iv. The non-hazardous secondary material must result in products that contain contaminants at levels comparable in concentration to or lower than those found in traditional products that are manufactured without the non-hazardous secondary material.