

Proposed Definition of Solid Waste

CIBO Environmental Committee
Meeting

June 9, 2010

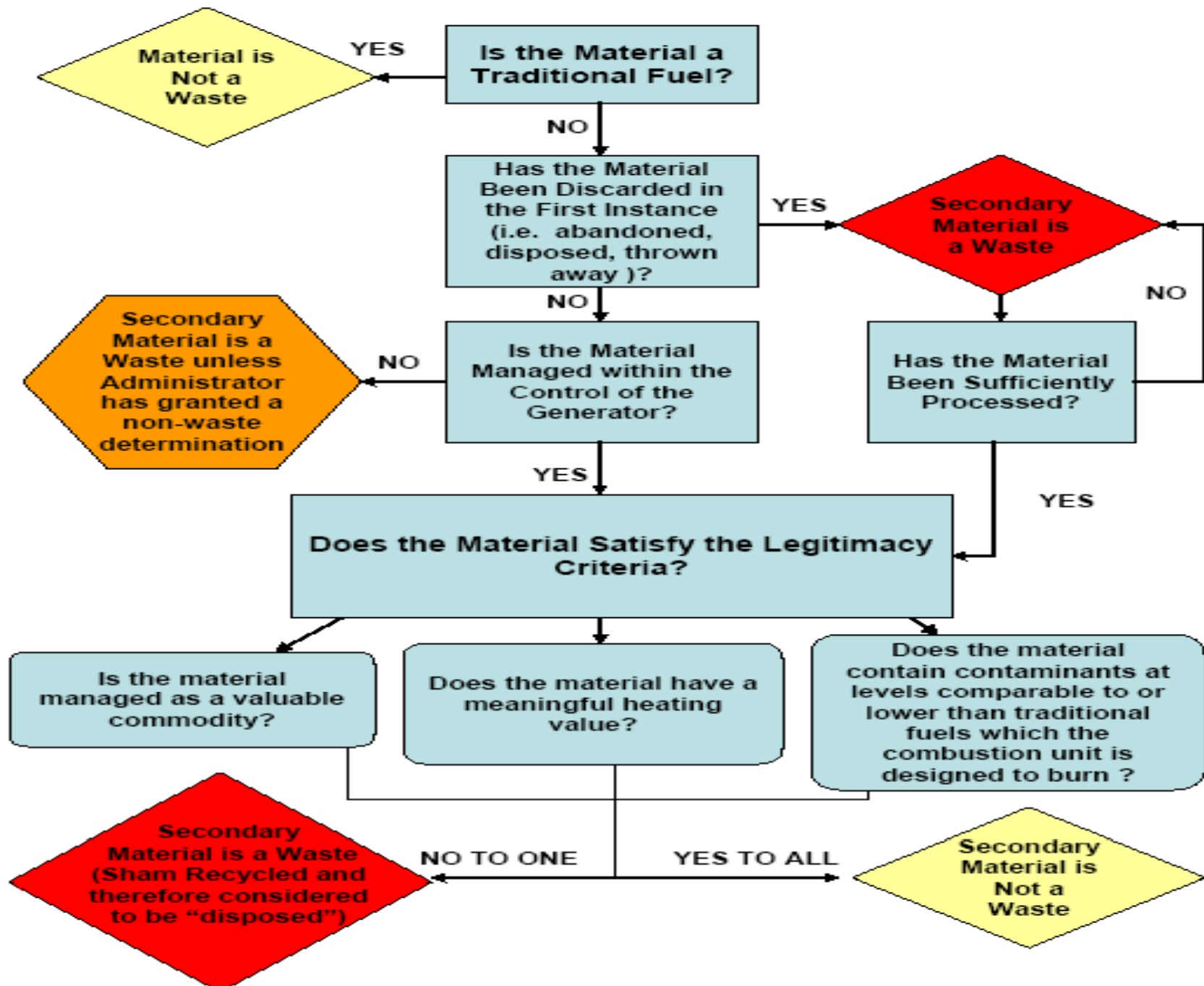
Definition of Solid Waste

- Key part of Boiler MACT environmental challenge was that many non-fossil fuel materials burned in industrial boilers should be classified as solid wastes
- Rule proposes criteria to determine which non-hazardous secondary materials (NHSM) are or are not solid wastes
- Units that burn solid wastes are “solid waste incineration units”, defined as units which burn “any solid waste material from commercial or industrial establishments”

Comment Period, Hearings, Lead EPA Staff

- The comment period for the definition of solid waste proposal has been extended to August 3rd
- Hearings for all four of the boiler MACT/CISWI rules will be held June 15 (Arlington, Virginia) and June 22nd (Houston and Los Angeles)
- The lead EPA staffer is George Faison, Program Implementation Division, Office of Resource Conservation & Recovery, (703) 305-7652, faison.george@epa.gov

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



Traditional Fuels

- Fossil fuels
 - coal, oil, on-spec used oil, natural gas
 - derivatives (petroleum coke, bituminous coke, coal tar oil, refinery gas, synthetic fuel, heavy recycle, asphalts, blast furnace gas, recovered gaseous butane, and coke oven gas).
- Clean cellulosic biomass materials
 - forest-derived biomass (e.g., green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, and tree harvesting residuals from logging and sawmill materials),
 - corn stover and other biomass crops (e.g., energy cane, other fast growing grasses), bagasse and other crop residues (e.g., peanut shells),
 - wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, and clean biomass from land clearing operations.

Concept of “Discarded”

- Non-hazardous secondary materials are not wastes if they remain within the control of the generator (aren’t discarded) and meet legitimacy criteria
- Within the control of the generator:
 - The material is generated & combusted at the same facility
 - Material is generated at one site and burned at another but the latter is “controlled” by the generator
 - Generating and combustion facilities are “under the control of the same person”

Legitimacy Criteria

- Handled as a valuable commodity
 - Managed in a manner similar to comparable fuels or otherwise contained to prevent spills or leakage
- Have meaningful heating value
 - Heating value of greater than 5,000 Btu/lb, as fired is offered as a potential “bright line”; or
 - Combustion unit can cost-effectively recover meaningful energy
- Used as a fuel in a combustion unit that recovers energy
- Contain contaminants at levels comparable to those in traditional fuels.
 - Contaminants defined as the 188 HAPs and the nine pollutants listed under CISWI

Solid Waste Petition Process

- EPA has established a petition process for materials used as fuels “outside the control of the generator.”
Basis for the petition: material has not been discarded and is indistinguishable in all relevant respects from a fuel.
- To receive a determination that a material is a fuel, not a waste, the petitioner would have to demonstrate that the material meets the following criteria:
 - Market participants handle as a fuel rather than a solid waste
 - The chemical and physical identity is comparable to commercial fuels
 - It will be used in a reasonable time frame given the state of the market
 - Constituents will be released to the air, water, or land from the point of generation to the combustion at levels comparable to what would otherwise be released from traditional fuels
 - Other relevant factors

Use of Previously Discarded Materials

- Non-hazardous secondary materials that have been discarded (into landfills, for example) can still escape a “solid waste” designation if they meet the legitimacy criteria for fuels and have undergone a requisite degree of processing.

“Sufficiently Processed”

- *Processing* means any operations that transform discarded non-hazardous secondary material into a new fuel.
- **NOT PROCESSING:**
 - Minimal operations, such as operations that result only in modifying the size of the material by shredding, screening, or sizing (of fly ash, for example)
 - Drying alone may not be considered processing
- **IS PROCESSING**
 - Remove or destroy contaminants;
 - Significantly improve the fuel characteristics of the material, e.g., sizing or drying the material in combination with other operations;
 - Chemically improve the as-fired energy content; and
 - Improve the ingredient characteristics.

Generally Not Solid Waste

- Clean biomass
- Clean biofuels processed from solid waste
- Wood products mill residuals (e.g., sanderdust, trim, resinated wood) within the control of the generator [but EPA has requested comment]
- Pulp and paper mills residuals (e.g., wastewater treatment plant sludge) within the control of the generator [but EPA has requested comment]
- TDF, where steel belts and wires have been removed
- On-spec used oil

Generally Are Solid Waste

- Painted wood (unless processed to remove the paint)
- Pentachlorophenol, copper-based, and borate-based compound treated wood materials
- Whole tires or shredded tires where a significant portion of the wire has not been removed
- Off-specification used oil
- [Municipal] sewage sludge (unless processed)
- Coal refuse abandoned in legacy coal refuse piles
- Contaminated construction and demolition debris

Alternative Proposal

- **Traditional fuels, including clean biomass, that have been burned historically would not be solid wastes**
- **All non-hazardous secondary materials that remain within control of the generator and meet the legitimacy criteria could still be classified as fuels, but may be classified as wastes (resinated wood and pulp & paper sludges mentioned in latter category)**
- **All discarded materials (regardless of processing) or materials that didn't meet legitimacy criteria would be wastes, including:**
 - **Coal refuse**
 - **TDF**
 - **On-spec used oil**
- **Would be no petition process**

Potential CIBO Comment Areas

- Legitimacy criteria concept (based on hazardous waste framework and concept of “sham recycling”, may not be appropriate here)
- Specific legitimacy criteria—meaningful heating value, comparable contaminant level
- Petition process—do we want states to make determinations?
- Processing previously discarded materials—level of processing required
- Treatment of specific non-hazardous secondary materials
- Alternative proposal