

MEMORANDUM:

DATE: FEB 28 1984

SUBJECT: Guidance on Determining When a Hazardous Waste Is a Legitimate Fuel That May Be Burned for Energy Recovery in a Boiler or Industrial Furnace

FROM: John H. Skinner, Director Office of Solid Waste (WH-562)

TO: Thomas W. Devine  
Director, Air and Waste Management Division  
Region IV

This is in response to your January 13 memo requesting guidance on allowable concentrations of halogenated solvents in waste fuels burned in high-efficiency boilers and rotary kiln incinerators.

This issue is understandably creating some confusion in your region and others as well. I believe that clarification of the following three points can clear up the confusion: (1) the types of combustion devices that can legitimately recover energy; (2) the hazardous wastes that are legitimate fuels; and (3) the status of our efforts to regulate burning in boilers and industrial furnaces.

Legitimate energy recovery can occur only when a legitimate fuel **is** burned in a legitimate energy recovery device. The enforcement guidance you referenced (48 FR 11157 (March 16, 1983)) and the subsequent proposed amendments to the solid waste definition (48 FR 14507-511 (April 4, 1983)) provide guidance to identify legitimate energy recovery combustion devices and legitimate fuels.

A legitimate energy recovery device must be a boiler that recovers usable heat (i.e., not just to preheat combustion air) or an industrial furnace (e.g., process kiln, smelter, or blast furnace) where the waste replaces other fuels. An incinerator cannot burn hazardous waste without a RCRA permit.

A hazardous waste is a legitimate fuel if it has substantial heat value, as generated. A blended hazardous waste is a legitimate fuel if the mixture has substantial heat value, provided that the

mixture does not contain a hazardous waste that does not have substantial heat value. The enforcement guidance indicates that a waste has substantial heat value if it has a heat value of 5,000 to 8,000 BTU/lb, as a rule of thumb. Thus, a hazardous waste with less than 5,000 BTU/lb heat value as generated is not considered to be a legitimate fuel, and any waste that is intentionally mixed with such a low heat value waste is not a legitimate fuel. For enforcement purposes, if a waste fuel contains high concentrations (say, >5%) of low heat value hazardous wastes, the Agency would have good reason to assume that intentional mixing has occurred, and should request documentation to the contrary from the party claiming the exemption. If it can be shown that each hazardous waste in the mixture has substantial heat value as generated, i.e., >5,000 BTU/lb, the waste is a legitimate fuel regardless of the concentration of low energy constituents (e.g., halogenated compounds like chlorinated solvents) in each waste or in the blended fuel.

The distinction between legitimate and illegitimate waste fuels is, at this point, a temporary necessity. We are regulating the burning of waste fuel in boilers and industrial furnaces under a two-phased approach. We will propose a rule this summer that prohibits burning in nonindustrial boilers of any hazardous waste and used oils that exceed a specification for toxic contaminants. Marketers and burners of hazardous waste fuels burned in industrial boilers and furnaces (and utility boilers) would be subject to notification, transportation, and storage requirements. Marketers and burners of off-specification used oil fuel would be subject to notification requirements and an invoice system to track shipments.

Technical controls on burning waste fuels in industrial boilers and furnaces will be proposed in spring 1985. We are now looking at regulatory alternatives for these units. When these regulations are promulgated, we will have controls for burning of hazardous wastes in these units regardless of purpose (i.e., regardless of whether the waste is a legitimate fuel burned for energy recovery or a low energy waste burned for destruction).

If you have comments or questions, please contact Dave Sussman of our Waste Treatment Branch at 382-7917.

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