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United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste

November 8, 1994

Mr. Joseph A. Kotlinski
Corporate Compliance Manager
CleanHarbors Environmental Services, Inc.
1200 Crown Colony Drive, P.O. Box 9137
Quincy, MA 02269-9137

Dear Mr. Kotlinski:

This is in response to your letter of June 24, 1994 requesting regulatory interpretations under the Resource Conservation and Recovery Act (RCRA) concerning certain fuel blending scenarios. Your letter presents four scenarios from which you ask several questions regarding fuel blending-related activities.

I want to emphasize at the outset that, unlike the situation prior to adoption of the Boiler and Industrial Furnace (BIF) rules in 1991, the 5,000 Btu/lb (as-generated) heating value criterion no longer determines the regulatory status of the boiler or industrial furnace (see 56 FR 7134, February 21, 1991). Currently, a fuel blender can blend wastes of any Btu value for burning in a BIF; however, there are consequences in doing so for industrial furnaces that use such blended wastes.

Specifically, the 5,000 Btu/lb value, as generated, is used as a reasonable yardstick to distinguish between waste fuels being burned for energy recovery versus those burned for destruction or, potentially, as an ingredient, unless the facility can demonstrate that the waste with less than 5000 Btu/lb is being burned for legitimate energy recovery. Thus, if an industrial furnace produces a product that is used in a manner constituting disposal (e.g., cement or light-weight aggregate kiln) and uses a blended fuel with a portion that has an as generated heating value of less than 5,000 Btu/lb, the Agency will generally assume that the waste is being burned for destruction. In such cases, the resulting product will be considered waste-derived (i.e., subject to regulation as hazardous waste), unless the facility can document

that the low heating value waste is being burned for legitimate energy recovery.

Scenario 1

In this scenario, a waste stream containing 4,000 Btu/lb as generated is sent to a permitted TSDF for storage and treatment. While in storage at the TSDF, the waste stream separates (by gravity) into two (2) distinct phases: an organic layer with a heat content of 6,000 Btu/lb; and an aqueous layer containing 3,000 Btu/lb.

(a) You ask whether a RCRA treatment permit is needed under 40 CFR Part 264 to decant the two (2) phases.

Based on the information provided, the unit(s) at the TSDF need a permit since the storage of hazardous waste is occurring, and the specific requirements of Part 264 would apply. Since the storage activity establishes the need for a permit, it is not necessary to determine whether treatment is occurring in the unit(s), although in this example decanting would be considered treatment under RCRA. Enclosed is a recent EPA memorandum dated October 17, 1994 which provides guidance on the regulation of fuel blending and related treatment and storage activities.

(b) You ask that if the decanting does not constitute treatment, can the decanted layer with a heat content of 6,000 Btu/lb be blended with other wastes destined for energy recovery, even though the decant originated from a waste with less than 5,000 Btu/lb as generated. You also ask if the separation/decanting results in a new point of generation making the blending of the high Btu layer legitimate.

If the decanting of the phases results in a concentrated stream containing 6,000 Btu/lb, the concentrated decant fraction would be considered high BTU "as generated," and can be used as a fuel accordingly.

Scenario 2

A waste stream containing greater than 5,000 Btu/lb as

generated is sent to a TSDF for storage and treatment. The waste stream contains a high concentration of acetone. Low Btu waste streams at the plant are mixed with the acetone stream to concentrate and separate the acetone. The resulting more concentrated acetone layer contains greater than 5,000 Btu/lb.

(a) You ask if the mixing of the acetone waste stream that contains greater than 5,000 Btu/lb with the low Btu waste stream is considered "sham recycling" if the waste stream is managed as a hazardous waste fuel.

(b) You ask if the resulting concentrated acetone phase can be used for hazardous waste fuels blending.

Since the 1991 BIF rules superseded the sham recycling policy, the question for an industrial furnace customer that produces a product that is used in a manner constituting disposal is whether they can document that the less than 5,000 Btu/lb hazardous waste is being burned for energy recovery. Note also that, based on the information provided, it is not clear to us why adding a low Btu waste stream to the "greater than 5,000 Btu/lb" waste stream would be beneficial, when the end result is separating off a waste stream that also has "greater than 5,000 Btu/lb". Is the reason for adding the low Btu waste stream to acquire acetone for recycling purposes? Additional information would be needed for us to fully understand and reply to your question.

Scenario 3

A 6,000 Btu/lb waste stream as generated is sent to a TSDF for storage and treatment. While in storage at the TSDF, the waste stream separates into a 8,000 Btu/lb organic phase and a 3,000 Btu/lb aqueous phase.

(a) You ask if the two phases can-be re-mixed and fuels blended, or if the re-mixing of the two phases and subsequent blending would be considered "sham recycling".

Again, the sham recycling portion of your question is not relevant, since the blender can blend wastes irrespective of their heating value. The question is what the consequences are for the

products of an industrial furnace using the blended hazardous waste fuel. However, the remixing of the two phases would not be considered treatment under RCRA (40 CPR 260.10) or a new point of generation because the original composition of the waste stream, as generated, is not changed.

(b) You also ask that, if the decanting is not treatment, can the phases be decanted and the 3,000 Btu/lb phase be blended, since the waste stream had not been treated, and originally came from a greater than 3,000 Btu/lb source as generated.

As discussed for scenario 1, the decanting of the separate phases results in two separate phases of the waste stream. Just as the 5,000 Btu/lb could be used as a fuel as explained in Scenario 2, the 3,000 Btu waste stream carries the consequences that when burned in an industrial furnace the facility must document that the low heating value waste is burned for legitimate energy recovery or the resulting product will be considered waste-derived.

Scenario 4

A high Btu load of gasoline and water from a tank clean-out arrives at a TSDF in fifty 55-gallon drums. The generator has certified that the waste stream contains greater than 5,000 Btu/lb as generated. Samples are collected from each drum and analyzed individually. Ten (10) of the drums are found to have a heat content less than 5,000 Btu/lb.

(a) You ask if the contents of the ten (10) drums can be blended for use as fuel because they originated from a source that has greater than 5,000 Btu/lb.

In this example, you have documentation that questions the generator's determination that the waste had an as-generated heating value greater than 5,000 Btu/lb. Thus, unless you document by analysis or mathematical calculation, that the total volume had a heating value greater than 5,000 Btu/lb, you cannot assume that the ten drums in question contain waste that have an as-generated heating value greater than 5,000 Btu/lb.

(b) You ask whether the point of generation is the

point at which the material was placed in each drum, and if so, should the generator have provided analysis to the TSDF for each drum in the load to verify its Btu content.

This question regarding the point of generation for clean out wastes streams raises complex issues that require detailed site-specific evaluations. EPA is currently examining whether the Agency should develop additional national guidance or regulatory changes to address the point of generation for clean out waste stream. We intend to raise this issue for public comment in Phase III of our land disposal restrictions rulemaking. Currently, decisions on these matters are being made by the appropriate permitting authorities on a case-by-case basis.

Thank you for the opportunity to respond to your questions regarding hazardous waste fuel blending. If you have any questions on the applicability of the regulations and permitting requirements for fuel blending activities, please call Jeffrey Gaines of my staff at (703) 308-8655.

Sincerely,
Michael H. Shapiro, Director
Office of Solid Waste

Enclosure
CC: RCRA Branch Chiefs, Regions I-X, Enforcement Section Chiefs, Regions I-X, Waste Combustion Permit Writers' Workgroup

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Attachment

CleanHarbors Environmental Services, Inc.
1200 Crown Colony Drive
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Quincy, MA 02269-9137
(617) 849-1800

June 24, 1994

Mr. Michael Shapiro, Director
Office of Solid Waste (5301)
United State Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Re: Fuels blending

Dear Mr. Shapiro:

This letter requests a regulatory interpretation concerning certain fuels blending scenarios.

(1). A wastestream containing 4,000 BTU/lb as generated is sent to a permitted TSDF for storage and treatment. While in storage at the TSDF, the wastestream separates (by gravity) into two (2) distinct phases: an organic layer with a heat content of 6,000 BTU/lb; and an aqueous layer containing 3,000 BTU/lb.

a. While State hazardous waste regulations may vary, is a RCRA treatment permit needed under 40 CFR Part 264 to decant the two (2) phases?

b. If decanting does not constitute treatment, can the decanted high BTU layer be blended with other high BTU wastes destined for energy recovery even though the decant came from a waste with less than 5,000 BTU/lb as initially generated? Does the separation/decanting result in a new point of generation, thereby making fuels blending of the high BTU layer legitimate?

(2) A wastestream containing greater than 5,000 BTU/lb as generated is sent to a TSDF for storage and treatment. The wastestream contains a high concentration of acetone. Low BTU wastestreams at the plant are mixed with the high BTU acetone stream to concentrate and separate the acetone. The resulting more concentrated acetone layer contains greater than 5,000 BTUs/lb.

a. Is the mixing of the high BTU wastestream with the low BTU wastestream considered "sham recycling" if this wastestream is managed as a hazardous waste fuel?

b. Can the resulting concentrated acetone phase be used for hazardous waste fuels blending?

(3) A 6,000 BTU/lb wastestream as generated is sent to a TSDF for storage and treatment. While in storage at the TSDF, the wastestream separates into an 8,000 BTU/lb organic phase and a 3,000 BTU/lb aqueous phase.

a. Can the two (2) phases be re-mixed and fuels blended, or is the re-mixing of the high and low BTU phases and subsequent blending considered "sham recycling"?

b. If decanting is not treatment, can the phases be decanted, and the 3,000 BTU/lb phase fuels blended since the wastestream has not been "treated" and it originally came from a greater than 5,000 BTU/lb source as generated?

(4) A high BTU load of gasoline and water from a tank cleanout arrives at a TSDF in fifty (50) 55-gallon drums. The generator has certified that the wastestream contains greater than 5,000 BTU/lb as generated. Samples are collected from each drum and analyzed individually. Ten (10) of the drums are found to have a heat content less than 5,000 BTU/lb.

(a) Can the contents of the ten (10) drums be fuels blended because they originated from a source that was

greater than 5,000 BTU/lb?

(b) Is the point of generation the point at which the material was placed in each drum? If so, should the generator have provided analysis to the TSDF for each drum in the load to verify its BTU content?

I appreciate your attention to these questions. Should you or your staff require clarification or additional information, please contact me at 617-849-1800, extension 4049.

Sincerely,
Joseph A. Kotlinski
Corporate Compliance Manager