

9441.1995(02)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 31, 1995

Mr. Bruce S. Gelber
Acting Chief
Environmental Enforcement Section
U.S. Department of Justice
1425 New York Avenue, N.W.
Washington, D.C. 20005

Dear Mr. Gelber:

This letter responds to your request for a written determination regarding the regulatory status of a distillate material known as "LX-830" that is derived from petroleum and coal tar naphtha feedstocks by the Neville Chemical Company. Specifically, you ask whether LX-830 would be considered a co-product fuel or a by-product hazardous waste fuel under EPA's regulations implementing Subtitle C of the Resource Conservation and Recovery Act (RCRA).

Based on Neville's written information submitted to Region III subsequent to May 1994, it would appear that LX-830 better meets the definition of a co-product and hence is not a solid or hazardous waste unless otherwise discarded. While the distinction between a co-product and a by-product is not always plainly evident and often requires an evaluation of several factors, the manner in which this material is produced and its subsequent management is consistent with other materials with which OSW has made a regulatory determination of "co-product." See 40 CFR 26.1(c)(3) (definitions of by-product and co-product).

LX-830 results from a reaction of petroleum and/or coal tar naphtha feedstocks used in a resin production process, although it is not the principal product of the process. (Enclosure 1 provides a more detailed description of the resin production process.) LX-830 has market value as a fuel product or fuel additive (comparable to conventional petroleum-based fuels), a conclusion based on its BTU value, product specifications and market history. While most of the LX-830 is burned on-site as a

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substitute for conventional fuels, Neville has recently represented that there is a history of marketing this material as a fuel or fuel additive for off-site use, and there is no evidence that the material was burned, either on-site or off-site, with the intent to discard it (e.g., burning amounts in excess of what was needed as a fuel source.)

Another factor supporting a determination that LX-830 is better classified as a co-product is that the LX-830 contains no hazardous constituents that are not otherwise typically found in conventional fuels. Thus, the burning of LX-830 does not constitute the discard of hazardous constituents and does not raise any greater environmental concerns than those raised by the burning of commercially available conventional fuels.

Therefore, since Neville has represented that the chemical makeup and subsequent handling and use of LX-830 is essentially similar to that of a commercially available fuel product, the Agency believes LX-830 should be considered a co-product. If, however, the LX-830 is mixed with any other non-fuel materials and then burned, the Agency would be concerned not only about the other materials being burned, but would also be obliged to reconsider whether LX-830 is truly a co-product rather than a by-product. Such mixing would be an indication that LX-830 is not truly managed as a product. In other words, to the extent that LX-830 is produced to product specifications and handled in a manner consistent with a valuable product, the Agency considers LX-830 to be a co-product; however, to the extent that the LX-830 appears to be simply the end residual of a production process that happens to have high BTU value and is handled as a wastestream with little concern for product integrity, the Agency would consider it to be a by-product. This determination is consistent with similar determinations made by Headquarters and the EPA regions regarding the distinction between a co-product fuel and a by-product being burned for energy recovery.

This interpretation reflects only the Federal regulations. States with authorized RCRA programs have the authority to make regulatory determinations about the materials which constitute solid and hazardous wastes under their programs, and they may impose more stringent requirements.

I hope this response has clarified the regulatory status of Neville Chemical's LX-830. If you have further questions, you

should contact Mitch Kidwell, of my staff, at (202) 260-4805.

Sincerely,

Michael H. Shapiro, Director
Office of Solid Waste

Enclosures

cc: Thomas C. Voltaggio
Hazardous Waste Management
Division Director, EPA Region III

Attachment

Enclosure 1

It is EPA's understanding that LX-830 results from Neville's resin manufacturing process. LX-830 is solely comprised of unreacted material that results from this resin manufacturing process. Neville manufactures various types of resin by feeding raw materials into a polymerization reaction. These raw materials are a blend of petroleum hydrocarbon feedstocks and coal tar naphtha feedstocks ("feedstock blend"). The temperature and length of time of any polymerization reaction is completely controlled by Neville's intent to produce a specific type of resin. Any polymerization reaction results in reacted material, or resin, and unreacted material. The reacted material/resin must be separated from the unreacted material. Neville uses two processes to separate the reacted material/resin from the unreacted material: 1) venting and 2) steam stripping. Neville vents a certain amount of unreacted material from the vessel in which the polymerization reaction took place ("polymerization vessel"). A portion of this vented unreacted material may be recycled back into the feedstock blend. The unreacted material that cannot be vented from the polymerization vessel is separated from the reacted material by steam stripping. By introducing steam into the reaction vessel, Neville strips the unreacted material from the reacted material. This stripping process results in a mixture of steam and unreacted material; this mixture is cooled, allowing the steam to condense into water; the water is then decanted from the unreacted material. A portion of the remaining unreacted material may be recycled back into the feedstock blend. Any remaining unreacted material which is not recycled is mixed with the vented unreacted material. This mixture of unreacted material is "LX-830".

Attachment

U.S. Department of Justice

January 27, 1995

Via Telecopy and Inter-Office Mail

Michael H. Shapiro (Mail Code 5301)
Director, Office of Solid Waste
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Re: Classification of Neville Chemical Company's LX-830
Distillate Under EPA's RCRA Regulations

Dear Mr. Shapiro:

I am writing to request that the Office of Solid Waste provide us with a written determination as to the appropriate regulatory classification of Neville Chemical Company's petroleum-based distillate, which Neville calls "LX-830." Neville has previously requested such a determination from EPA Region III, and the classification of LX-830 is one of the principal issues in *United States v. Neville Chemical Company*, Civ. No. 94-0288 (W.D. Pa.), a pending civil action which the Department of Justice filed on behalf of and at the request of EPA on February 23, 1994, alleging various violations of the Resource Conservation and Recovery Act, of regulations promulgated by EPA thereunder, and of the authorized state hazardous waste regulations.

Attached are materials that Neville provided to EPA Region III concerning LX-830.

Very truly yours,

Assistant Attorney General
Environment and Natural Resources Division

By:
Bruce S. Gelber

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Acting Chief
Environmental Enforcement Section

Attachments

Attachment

Neville Chemical Company

March 6, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert E. Greaves, Chief
RCRA Enforcement/UST Branch
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

Re: RCRA Section 3007 Information Request
Neville Chemical Company
Product Classification of LX-830

Dear Mr. Greaves:

As you may recall, during our meeting with you and your staff in Philadelphia on November 27, 1991, you invited Neville Chemical Company ("Neville") to submit additional information for your consideration in determining whether our LX -830, also referred to as "fuel oil" or "fuel oil distillate," is a product or a waste. Accordingly, this letter serves to provide you with all of the specific information requested by your staff. Such information includes a detailed process description, the quantification of chloride compounds in feed stocks purchased by Neville and in our LX-830 fuel oil, and a comparison of the purchase price of the feedstocks and the sales price of our LX -830 fuel oil. This letter also serves to memorialize the basis for Neville's classification of its LX -830 as a product.

As a practical matter, because the U.S. Environmental Protection Agency ("EPA or "the Agency") authorized the Commonwealth of Pennsylvania to implement the base Resource Conservation and Recovery Act ("RCRA") hazardous waste program, a determination of whether LX -830 should be classified as a product or a waste is based solely on an application of the 25 Pa. Code Part 261 regulations of the Pennsylvania Department of Environment

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Resources ("PaDER" or "the Department"). These regulations have been in place since the early 1980's and have not yet been revised to be consistent with the pre-Hazardous and Solid Waste Amendment ("pre-HSWA") definition of solid waste regulations promulgated by EPA on January 4, 1985. See 50 Fed. Reg. 614. Although PaDER's regulations do not contain the "co-product" versus "by-product" distinction as found in EPA's current definition of solid waste regulation (see footnote 1), PaDER does provide a mechanism whereby materials that would otherwise fail a characteristic hazardous waste test can be deemed exempt from the hazardous waste management standards, provided such materials have commercial value and a history of routine commercial trade. See 25 Pa. Code 261.6 (formerly 25 Pa. Code §75.261(e)(1)).

By letter dated October 19, 1983, the Department granted Neville the 25 Pa. Code §261.6 exemption for LX -830. Although a PaDER follow-up letter dated August 15, 1991 called the exempt status of LX -830 into question based on allegations that various waste streams were added to the fuel oil distillate, these accusations were categorically not true. Neville has never added waste streams to its LX -830 and still continues to rely on the October 19, 1983 exemption.

Further, in an attempt to promulgate new definition of solid waste regulations, PaDER proposed PK-4 hazardous waste regulations in January 1990, revised the regulations based on comments received on the proposal, and on March 17, 1992 is scheduled to present these revised PK-4 regulations to the Pennsylvania Environmental Quality Board for approval. The Department's pending regulations would replace the existing beneficial reuse exemption at 25 Pa. Code §261.6 with "product," "co-product" and by-product" designations at 25 Pa. Code §260.2. These imminent Pennsylvania regulations which clarify the issue of which materials are products and which are wastes, go beyond the existing federal distinctions among these terms.

Specifically, a "product" is defined as a "commodity that is the sole or primary intended result of a manufacturing or production process." A "co-product" is defined as:

Any material generated by a manufacturing or production process or an expended material, of a physical character and chemical composition that is consistently equivalent to, or exceeds, the physical character and chemical composition of

an intentionally manufactured product or produced raw material, provided that the use of the material present no grate threat of harm to human health or the environment than the use of the product. The term only applies to such material:

(i) if the material is to be transferred in good faith as a commodity in trade, for use in lieu of an intentionally manufactured product or produced raw material, without processing, and the material is actually used on a regular basis; or

(ii) if the material is to be used by the manufacturer or producer of the material in lieu of an intentionally manufactured product or produced raw material, without processing, and the material is actually used on a routine basis.

A "by-product" is simply defined as any material that does not qualify as a "product" or a "co-product" regardless of its value. In contrast, the federal definition sets forth a different standard.

As documented extensively in this letter and in our prior letters to the Agency dated June 17, 1991, August 8, 1991, September 4, 1991, October 11, 1991 and October 24, 1991, because Neville's LX -830: (1) is of the same composition and quality as other raw materials that would be used by your customers in their production processes if the LX -830 were no longer available (and our customers will support this assertion); and (2) is actually used as a commodity in trade on a "regular" and "routine" basis in lieu of a more expensive raw material, our LX -830 is correctly classified by the PaDER as exempt under the authorized Pennsylvania hazardous waste program, would be classified as "co-product" nder EPA's hazardous waste program and would be classified as "co-product" under PaDER's revised definition of solid waste.

Detailed Process Description

At Attachment A, we have provided you with a resin production diagram that also depicts the production of distillates, which make up the LX -830 product line. As illustrated by the diagram, the process feed streams must include sufficient amounts of

generically compatible non-reactables in order to manage the polymerized portion of the feed subsequent to polymerization. After separation, two streams (products) are produced: (1) Hydrocarbon resins; and (2) Distillate. Part of the distillate is recycled back to the feed stream in order to maintain the proper concentration of polymerizables. The unrecycled portion is used to produce LX -830. When Neville designed and developed its resin manufacturing process in the 1930's, we intended (and needed) to produce two separate products (i.e., resin and fuel oil distillate). Without the production for the fuel oil distillate, resin could not be produced at a cost capable of meeting competitive market pricing.

Fuel Oil Blending Diagram

There have been no changes in our fuel oil blending and distribution diagram as set forth in Attachment B. We do not have the draft drawings from which the draftsman prepared either the original drawing dated December 22, 1988 which incorrectly suggested the inclusion of miscellaneous sources with LX -830 or the revised drawing dated December 15, 1989.

Quantification of Chloride Compounds in Feedstock Versus the LX -830 Fuel Oil

In Attachment C, we have provided you with the results of the analyses of the raw material feedstocks received from our suppliers which contained unidentified chloride compounds at levels in excess of 400 parts per million. During processing, these feedstock chloride compounds carry through to, and accumulate in, the distillates. Neville does not add any chloride-containing materials to its LX -830. Analyses provided at Attachment D illustrate the chloride content similarities between the raw material feedstock blends and the resultant distillate streams. Attachment D also illustrates the organic chemical similarities between the feedstock blends and the distillate streams.

Comparison of Feedstock Purchase Price and LX -830 Fuel Oil Sales Price

The cost of raw materials range from approximately \$.80/gallon to approximately \$1.20/gallon. The value of the LX -830 fuel oil is approximately \$.40/gallon, but depends upon the market. Sales at lower values have occurred, due to high inventory levels or

depressed market conditions.

Customers Use of LX -830

LX-830 customers' use include viscosity modification within their fuel blending operations. Enjet, Inc. specifically advised EPA that they blend LX -830 with other cutter stock-fuel oil to produce a blended product suitable for use in marine fuel and/or fuel oil. Enjet customers include BP North America, Hill Petroleum and Chemoil Gulf Coast. See Enjet letter of September 10, 1991 submitted in response to EPA's RCRA 3007(a) Information Request.

We appreciate your cooperation with regard to the proper classification of our LX -830 fuel oil and request that you reconsider your earlier categorization of this product as a hazardous waste in light of all available information. If you have any additional questions or concerns, please bring them to my attention at your earliest convenience. Your prompt review of this information and reconsideration of the Agency's past position with regard to LX -830 is requested in light of the economic and business hardships currently experienced at Neville due to EPA's initial determination.

Sincerely,

Thomas F. McKnight
Vice President & General counsel

TFM:jhb
Attachments

cc:
William D. Roper
Lawrence Falkin/EPA
Gale Campbell/PaDER

Footnotes

1. Even under the Agency's definition of solid waste, LX -830 is a "co-product" because it is one of two primary products that is intentionally and separately produced by Neville, and LX -830 is suitable for end use as is (i.e., as a fuel oil) without any additional blending. See 48 Fed. Reg. 14472 at 14476 (April 4, 1983) and Fed. Reg. 614 at 625 and 630 (January 4, 1985).