

9444.1987(17)

PAINT WASTES AND THE SPENT SOLVENT LISTINGS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 20 1987

Mr. Stephen J. Evans
Environmental Engineer
Modine Manufacturing Company
1500 De Koven Ave
Racine, Wisconsin 53401

Dear Mr. Evans:

This is in response to your letter of March 30, 1987, in which you request guidance as to the proper classification of waste paint sludge and whether these wastes are subject to the November 7, 1986, land disposal restrictions rule. Specifically, you referred to paint sludge waste resulting from paint operations where the paint has been thinned with petroleum naphtha solvent. Furthermore, you indicated that the virgin petroleum naphtha solvent contains certain solvent constituents that are also included under the F001-F005 spent solvent listings (e.g., xylene and toluene).

Each of the questions raised in your letter is restated below and followed by the appropriate response

1. Can we continue to classify the paint sludge as a D007 waste or must we classify it as an F003 waste?

In order for a waste to meet the criteria of the spent solvent listing (i.e., EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005), the waste must be generated as the result of a solvent being used for its "solvent" properties, that is, its ability to solubilize (dissolve) or mobilize other constituents (e.g., solvents used in degreasing, cleaning, fabric scouring; as diluents, extractants, reaction and synthesis media). Process wastes containing solvents where the solvent is an ingredient in the formulation of a product are not covered by the spent solvent listings. Thus, paints containing solvents as an ingredient are not covered under the solvent listings. In the painting process scenario you described, the addition of petroleum naphtha solvent to a paint product constitutes the formulation of a modified paint product.

The Agency does not recognize a distinction between paints that contain solvents and paint where solvents have been added.

Therefore, thinned paint (as described in your letter) that is later discarded as a waste or paint sludge resulting from the use of the thinned paint would not be covered under the F001-F005 spent solvent listings. If the extractant from a representative sample of the paint sludge exceeds the maximum concentration of chromium for the characteristic of EP Toxicity (40 CFR 261.24), the waste would be appropriately classified under EPA Hazardous Waste Number D007.

2. If virgin xylene were used in lieu of petroleum naphtha to thin the paint, is the paint sludge that results an F003 waste (>1% xylene by weight in paint sludge)?

Regardless of whether the solvent is virgin xylene or petroleum naphtha, the solvents are used as ingredients in the formulation of the paint. As such, the resultant paint sludge would not meet the criteria for an F003 spent solvent waste (refer to the response to question No. 1).

3. If waste or reclaimed xylene were used in lieu of petroleum naphtha to thin the paint, is the paint sludge that results an F003 waste (>1% xylene in paint sludge)?

No. The paint sludge that results would not be properly classified as an F003 spent solvent waste (refer to the response to question No. 1).

4. If xylene were used to clean the spray guns (the solvent/paint sprayed onto the water wall), would the paint sludge then become an F003 waste (>1% xylene in paint sludge)?

Using xylene to clean the spray guns constitutes use for its solvent properties because the xylene solubilizes (dissolves) other constituents (i.e., paint). As such, spent xylene that is generated from this cleaning practice would be covered by the spent solvent listings, specifically Hazardous Waste No. F003. Furthermore, in cases where the spent xylene that results from cleaning spray guns (an F003 waste) is mixed with paint sludge produced from the painting scenarios described under questions 1, 2, and 3, the resultant waste stream would be considered an F003 waste (in accordance with the "mixture rule", 40 CFR 261.3

(a)(2)(iv)).

5. If petroleum naphtha and xylene were used to thin the paint (and the resulting mixture contained >10% xylene by volume), is the paint sludge that results an F003 waste?

As mentioned above, paint sludge resulting from the overspray of thinned paint does not meet the criteria for an F003 waste, since the solvents (in this case, petroleum naphtha and xylene) are ingredients in the formulation of the paint. Thus, the solvent mixture rule does not apply (see 50 FR 53315, December 31, 1985).

6. If the paint sludge that results is properly classified as an F003 waste (because it contains >1% xylene), and it is processed using a distilling device that removes all of the solvent and water from the paint sludge, is the resulting 'cooked' sludge an F003 waste even though it no longer contains solvents? If so, can it be delisted? If the 'cooked' sludge meets the solvent treatment standard of 0.15 mg/1 for xylene, can it be landfilled?

In accordance with the "derived from rule" (40 CFR 261.3(c)(2)), the residue from treatment of a hazardous waste remains a hazardous waste. Thus, assuming the waste stream is properly identified as an F003 spent solvent waste, the "cooked" sludge resulting from distillation of this material remains an F003 hazardous waste and is subject to the applicable land disposal prohibition requirements unless delisted according to the provisions, or rendered non-hazardous (see 40 CFR 261.3(a)(2)(iii)). It should be noted that the delisting procedures require that the petitions address all factors that may cause the waste to be hazardous, not only those for which the waste was originally listed.

Where restricted wastes and the concentrations of their associated hazardous constituents meet the applicable treatment standards, the wastes may be disposed of in a Subtitle C facility. Therefore, if the "cooked" sludge meets the treatment standard established for xylene and does not exceed the treatment standards for any other restricted waste constituents, it may be placed in a hazardous waste land disposal facility.

7. If the water wall and associated tank were removed and replaced with dry filters, and paint containing >10% by volume of xylene was applied to the product, would the waste paint filters be classified as an F003 waste? If the waste paint filters

-4-

contained 0.15 mg/l xylene, would they be classified as an F003 waste?

The waste paint filters described in this scenario would not be properly classified as an F003 waste since the paint residuals would not constitute a spent solvent (refer to the response to question No. 1).

I hope this information adequately addresses your concerns. Please feel free to contact William Fortune, of my staff at (202) 475-6715, if you have any further questions.

Sincerely,

Jacqueline W. Sales, Chief