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

September 1, 1993

Mr. Frank J. Prasil, III
Recycled Printer's Ink, Inc.
1101 Jefferson Avenue
Knoxville, Tennessee 37917

Dear Mr. Prasil:

Thank you for your letter dated November 12, 1992, describing your proposal to remanufacture (i.e., recycle) waste printer's ink from sheet fed lithographic printers. We also appreciated the opportunity to meet with you on several occasions, most recently on August 10, 1993, to learn more about your proposed ink recycling operation. In your letter, you specifically asked if there were any special permits needed to remanufacture used printer's ink. I apologize for the delay in responding to your question.

The federal law that governs hazardous waste management is the Resource Conservation and Recovery Act (RCRA). The regulations which implement this law are found at Title 40 of the Code of Federal Regulations (CFR), Parts 260 through 272. Below I will outline some of the more important parts of the federal RCRA regulations that may pertain to your proposed waste ink recycling process. In order to establish whether and how the waste ink recycling process you propose is regulated under RCRA, it is important to determine 1) whether or not the waste ink meets the definition of RCRA hazardous waste as defined in 40 CFR Part 261, 2) if hazardous, how the recycling process itself is regulated, including hazardous waste storage and the management of recycling residues, and 3) how the RCRA regulations may differ for hazardous waste received exclusively from Conditionally Exempt Small Quantity Generators (CESQGs).

Hazardous Waste Determination

A solid waste is defined as a hazardous waste if it meets any

of the listing descriptions in 40 CFR Part 261, Subpart D, or if it exhibits any of the characteristics in 40 CFR Part 261, Subpart C. You stated in your letter that your proposed recycling process will be accepting waste ink from sheet-fed lithographic printers. Based on the information you provided, the waste ink is defined as a spent material (40 CFR 261.1(c)(1)), which is being reclaimed. Spent materials that are to be reclaimed are defined as solid waste (40 CFR 261.2(c)(3)). You stated that in general the waste ink is currently being managed by printers as ignitable hazardous waste, and that it may also contain solvents used to clean the equipment during printing operations. Based on the information you provided, the waste ink appears to meet the definition of non-acute hazardous waste either by 1) exhibiting the characteristic of ignitability (D001), or 2) by meeting a spent solvent listing in Section 261.31 (F001 - F005), depending on what types of solvents are used to clean the ink machines. If the used ink does not meet the definition of hazardous waste, the hazardous waste regulations would not be applicable.

Regulation of Hazardous Waste Recycling

Assuming that the waste ink is hazardous waste, the RCRA regulations pertaining to hazardous waste recycling are found in 40 CFR Sections 261.2, 261.6, and Part 266. According to 40 CFR 261.6(c), no federal RCRA permit is required to recycle hazardous waste. However, owners and operators of recycling facilities that store hazardous waste prior to recycling it must obtain RCRA permit for the storage of that hazardous waste (40 CFR 261.6(c)). You indicated to my staff that you would not be storing the waste ink prior to recycling, but would instead be inserting it directly into the recycling process. If there is no storage prior to recycling, you would not need a RCRA storage permit, but would instead be subject to the requirements in 40 CFR 261.6(c)(2). In situations where hazardous wastes are received from off site but are held temporarily prior to being recycled, the determination of whether or not the recycling facility requires a RCRA storage permit (i.e., is "storage" occurring) is a site-specific one; this type of determination should be made by the agency responsible for implementing the RCRA program (i.e., authorized State or EPA regional office) in the state where the proposed recycling facility will be located.

Also, according to 40 CFR 261.6(c), a hazardous waste

recycling facility is required to notify under RCRA Section 3010 (and obtain an EPA ID number) regardless of whether or not a RCRA permit is required for that facility. Obtaining an EPA ID number helps ensure that the waste can be transported from the generator to the recycler/storage facility in compliance with the hazardous waste manifest requirements.

Management of Residues from Recycling

It appears that the waste ink you will be recycling may carry a hazardous waste listing (e.g., F001 - F005). In previous discussions with my staff, you had indicated that your proposed recycling process would not generate any residues that would be defined as wastes, and would therefore not be "derived-from" listed hazardous wastes (see footnote 1). The materials that you stated could possibly be produced from the ink reclamation process (besides the recovered ink itself) include reclaimed solvent, distilled water, or a water/solvent mixture, depending on the type and configuration of the recovery equipment. At our meeting on August 10, 1993, you indicated that at present you are considering recovering the water/solvent mixture, that then would undergo some minimal processing (i.e., addition of surfactants) and be sold back to the printers for use as a cleaner in the printing process (see footnote 2). For any of these situations, the residues would need to be legitimate products in order to be excluded from the definition of solid waste (and therefore not be hazardous waste).

While the EPA is very familiar with the example of spent solvents attaining "product status" once they are reclaimed, the other examples you cited (specifically, the distilled water and the decanted water/solvent mixture) are less clear. Legitimacy determinations regarding the status of reclaimed materials as products are typically made on a case-specific basis by the agency implementing the RCRA program (e.g., authorized state or EPA region). Factors that may be considered include how similar the recovered material is to the virgin product it is replacing (in terms of both its value and the presence of hazardous constituents not normally found in the virgin product), and whether there are any product specifications that apply to the solvent/water mixture you are "producing" from your reclamation process. I have enclosed some information that should help explain some of the criteria EPA would use in evaluating these types of situations.

Requirements for CESQG Waste

In your letter, you indicated that 80% of sheet-fed lithographic printers are conditionally-exempt small quantity generators (CESQGs). As you know, the amount of hazardous waste generated per facility per calendar month determines a generator's category, which in turn affects the degree of regulation under RCRA of both the generator and the waste itself (40 CFR Part 262). By definition a CESQG generates less than 100 kilograms of non-acute hazardous waste per month. Alternatively, if a printer generates between 100 and 1000 kilograms of hazardous waste, they are defined as a small quantity generator (SQG); and if the printer generates more than 1000 kilograms of hazardous waste, they are defined as a large quantity generator. Small and large quantity generators are subject to more substantive requirements outlined in 40 CFR 262.34. The printer, as generator, is responsible for calculating the total amount of hazardous waste (not just hazardous waste ink) his or her business generates during each and every month. You should be aware that the amount of hazardous waste generated per month may vary, and thus the applicable regulatory requirements for the generator and the waste itself may also vary from month to month.

Assuming that a printer is a CESQG, the hazardous waste ink is subject to reduced RCRA requirements, provided the printer complies with the conditions of that exemption as described in 40 CFR 261.5(g). These conditions include (but are not limited to) complying with 40 CFR 262.11 (hazardous waste determination), limitations on the storage of CESQG waste at the generating facility to less than 1000 kilograms, and ensuring delivery of the CESQG waste to one of the types of facilities listed in 40 CFR 261.5(g)(3), which includes "a facility which beneficially uses or reuses, or legitimately recycles or reclaims its waste" (40 CFR 261.5(g)(3)(v)(A)).

If you anticipate operating a hazardous waste recycling facility under reduced requirements because you only receive CESQG hazardous waste, it is important that you understand that the reduced regulatory requirements for CESQG hazardous wastes are contingent upon the actions and determinations of many small generators, perhaps in several states, over which you would have limited control. For example, there may be sheet-fed lithographic printers generating waste ink in authorized States where CESQG waste is regulated more stringently than under the federal RCRA

regulations; or, some printers that are not CESQGs (either knowingly or unknowingly) might send their waste ink to your facility for recycling. If as a recycler you collect any hazardous waste ink from non-CESQGs (e.g., one shipment from a SQG or LQG), then the hazardous waste ink (and your recycling facility) would be subject to the applicable requirements described earlier in this letter under "Regulation of Hazardous Waste Recycling".

Summary

EPA supports sound and legitimate recycling of hazardous waste wherever possible, and we laud your efforts to develop an alternative to the disposal of hazardous waste ink. EPA also wants to ensure that hazardous waste recycling occurs in a safe manner in full compliance with applicable federal and State requirements. You have suggested that the operation you propose may not be commercially viable if certain RCRA regulations apply. We are certainly concerned that the RCRA regulations may be discouraging environmentally sound recycling projects. As you know, a Definition of Solid Waste Task Force was formed last fall to address these kinds of issues. Your attendance at the Solid Waste Forum last April in Washington D.C., and the information you provided Nancy Bacon-Brown of the Task Force during the meeting on August 10, 1993, was very much appreciated.

I have described how the federal hazardous waste recycling regulations would apply to the proposed recycling operation as described by you in your letter and in subsequent conversations with my staff. Please note that under Section 3006 of RCRA (42 U.S.C. Section 6926), individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. When a State is not authorized to administer its own program, the appropriate EPA Region administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate regulatory requirements that are more stringent than federal regulatory requirements. In addition, if you still have questions concerning how the Department of Transportation (DOT) regulations apply to your situation, I would encourage you to continue dealing with DOT. DOT operates a hazardous materials helpline in Washington, D.C. at (202) 366-4488.

If you have questions about the information in this letter, please contact Ross Elliott or Ann Codrington of my office at (202) 260-8551. Thank you for your innovative ideas.

Sincerely,

Jeffery D. Denit
Acting Director,
Office of Solid Waste

- 1 In the derived-from rule it states "materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal." 40 CFR 261.3(c)(2)(ii).
- 2 You stated that the printers typically use a commercially available water/solvent mixture to clean the printing machine, and that this reclaimed material would replace that virgin product.