

would be a listed hazardous waste if it contains any of the constituents of concern at a mass loading equal to or greater than the annual hazardous mass limit identified for that constituent. Under the proposed approach, all waste handlers may manage as nonhazardous all wastes generated up to the loading limit, even if the waste subsequently exceeds one or more annual mass loading limits. The detailed descriptions of the steps you would be required to follow to demonstrate that your waste does not exceed the K181 listing limits is presented in section V. Finally, in the third step, you would be able to determine whether your waste is eligible for a conditional exemption from the K181 listing. You would need to demonstrate that your waste does not exceed a higher loading limit for one constituent and that it is being disposed of a landfill subject to design standards set out in § 258.40, § 264.301, or § 265.301.

B. Why Is a Mass Loadings-Based Approach Being Used for This Listing?

We have previously proposed two concentration-based listing determinations that were similar to today's proposal of a mass loadings-based listing. These proposals (the 1999 dyes and pigments listing proposal and the 2001 paint listing proposal) identified concentrations that would have served as listing levels for the constituents of concern for those wastes. Both proposals dealt with industries that generate highly variable wastes. We believed these proposals added a valuable level of flexibility to the listings, by clarifying the levels at which the wastes of concern began to pose risk that warranted hazardous waste control. These levels would have served as both pollution prevention goals, whereby facilities could reengineer their processes to minimize specific risks, and built-in delisting levels, allowing generators to exit the Subtitle C system without invoking the rulemaking process required by the current Delisting Program.

As we assessed this approach, we concluded that a mass loadings-based approach to listing dyes and/or pigments production wastes as hazardous has all of the advantages of a concentration-based listing. For example, a mass loadings-based approach allows generators to evaluate the variable wastes they generate individually for hazard, so only wastes that are hazardous are listed. As a result, there should be less burden on dyes and/or pigments manufacturers than would be imposed by a traditional listing that would bring entire wastes

into the hazardous waste system, regardless of the amount of constituents found in wastes generated by individual generators. Also, a mass loadings-based listing approach may provide an incentive for hazardous waste generators to modify their manufacturing processes. For example, if a manufacturer has a listed hazardous waste based on constituent-specific mass loading levels established by EPA, the generator knows that if the wastes' mass loading levels are reduced below the regulatory level due to raw material substitution or process change, the waste would not be regulated as a listed hazardous waste. Therefore, the generator may decide to substitute raw materials in order to generate a nonhazardous waste. This approach encourages waste minimization and reduced use of toxic constituents, goals of both RCRA and the Pollution Prevention Act of 1990 (42 U.S.C. 13101 *et seq.*, Pub. L. 101–508, November 5, 1990).

Section 1003 of RCRA states that one goal of the statute is to promote protection of human health and the environment and to conserve valuable material and energy resources by “minimizing the generation of hazardous waste and the land disposal of hazardous waste by encouraging process substitution, materials recovery, properly conducted recycling, and reuse and treatment.” Section 1003 further provides that it is a national policy of the United States that, whenever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible.

The Pollution Prevention Act of 1990 provides a hierarchy of approaches. Pollution should be prevented or reduced; wastes that cannot be prevented should be recycled or reused in an environmentally safe manner; wastes that cannot be prevented/reduced or recycled should be treated; and disposal or release into the environment should be chosen only as a last resort. If EPA provides a mass loadings-based target in the listing, generators would have regulatory and economic incentives to meet the reduced levels.

The mass loading approach also offers two additional advantages. It will improve environmental protection by capturing large volume, dilute wastes that would not be regulated under a concentration-based approach. Also, since it requires less data from individual facilities, it allows us to move forward on the last of the HSWA-mandated listings without complete resolution of the *Magruder* CBI litigation.

While this approach represents a new way of assessing wastes, we believe that the underlying concepts of assessing the mass of constituents of concern are similar to other EPA programs, including reporting that may be required for major sources under the CAA, for facilities subject to the TRI, and for facilities subject to NPDES permits. Many facilities potentially impacted by this listing will already be assessing constituent masses under these types of programs.

EPA solicits public comment on all aspects of this mass-loading-based approach to making a listing determination, including the impact of such an approach compared to approaches used in the past (*e.g.*, concentration-based approach) and its usefulness as a means of encouraging pollution prevention.

C. What Wastes Are Generated by This Industry?

As explained earlier in Section II.G, we estimate that currently there are 37 active dyes and/or pigments facilities operated by 29 companies (excluding those no longer making in-scope dyes and/or pigments products and those due to be closed) based on the information provided by the trade associations (CPMA, ETAD and IACM) in 2002–2003.

Based on the non-CBI portions of the 1992 RCRA § 3007 survey data (as supplemented and updated) submitted by entities who were not plaintiffs in the *Magruder* litigation, organic dyes and/or pigments manufacturers mainly generate the following types of waste: Wastewaters (including process washes, equipment rinse waters, and other waste liquors), spent solvents, still bottoms, wastewater treatment sludge and other solid materials (such as emission control dust and fines, off-specification products, spent filter aids/cloths, process sludge and filter cake.)

We estimate that the 37 dyes and/or pigments production facilities generate up to 22 million metric tons of wastewaters and 69,000 metric tons of nonwastewaters per year.¹⁸ Our estimates of wastewater generation rates were based on rates reported in NPDES permits for those facilities that discharge directly to surface water. For facilities that discharge their wastewaters indirectly through POTWs, we estimated their wastewater generation rates using data compiled by

¹⁸ See “Economic Assessment for the Proposed Loadings-Based Listing of Non-Wastewaters from the Production of Selected Organic Dyes, Pigments, and Food, Drug, and Cosmetic Colorants” in the public docket for today's proposed rule for a description of our waste quantity estimation.