

4. Evaluation of Regulatory Options

We considered the proposed regulatory approach and two primary regulatory options for management of the waste streams examined in this assessment. These were: the proposed mass loadings-based approach (combined with a contingent management approach), a no list status quo option, and the standard listing or traditional approach. The no-list option would result in manufacturers not incurring any incremental management and/or administrative costs under RCRA. This option, however, may result in affected facilities facing future human health and environmental liabilities for groundwater or other damages. In addition, those exposed to the targeted contaminants above the loading levels of concern may continue to suffer adverse health and welfare impacts. The traditional listing option would require that all manufacturers generating any waste meeting a categorical listing description comply with RCRA Subtitle C requirements. Under this option, the entire quantity of the waste of concern would be defined as hazardous, regardless of any mass loadings-based determination. Most of the affected manufacturers would incur waste management and administrative procedure costs incremental to current baseline practices. Our mass loadings-based (with contingent management) approach, as proposed, requires affected manufacturers to determine whether or not their wastes contain the regulated constituents, and, if such constituents are generated in quantities of concern. Wastes with constituent levels exceeding the primary set of thresholds proposed for these wastes may be exempted from the listing if they show that their wastes do not contain constituent loadings above the § 261.32(c)(2) listing levels and their wastes will be disposed of in a landfill subject to the design requirements in 40 CFR 258.40 or in a Subtitle C landfill cell subject to either § 264.301 or § 265.301. Only the incremental quantity above the annual mass loadings limit is affected. The affected manufacturer is not expected to incur any incremental costs if the waste does not contain constituents of concern or meet the applicable mass loading threshold. Furthermore, even if the wastes exceed the threshold mass loadings, the contingent management aspect of the proposed listing allows wastes to be handled as nonhazardous, provided the waste is disposed in a landfill that meets or exceeds the § 258.40 design standards or in a Subtitle C landfill cell subject to either

§ 264.301 or § 265.301, and if the conditional mass loading limit is not met for toluene-2,4-diamine.

Five out of the eight constituents of concern do not have UTS levels or LDR standards. The establishment of UTS levels and LDR standards for these constituents may result in sampling/analysis and treatment costs to industries beyond the manufacturers generating K181. We have examined these potential cost impacts under two scenarios: no listing—status quo, and UTS/LDR standards for these constituents.

Finally, today's action, as proposed, may also impact Subtitle D landfills who have previously received the newly listed dye, pigment, perylene and FD&C wastes. Leachate collected from landfills that previously received these wastes may be considered hazardous if such waste is determined to have met the hazardous waste definition at the time of disposal, and the leachate generated from these landfills contains the K181 constituents. We considered two regulatory options for these landfills: the no-list option, and, a Clean Water Act temporary deferral option (Agency preferred).

5. Assessment of Costs, Economic Impacts, and Benefits

Today's proposed action is projected to result in incremental compliance costs to selected organic dye, pigment, and FD&C manufacturers subject to the requirements of this rule. In most cases, these manufacturers may face no more than increased analytical and waste disposal costs. Non dyes and/or pigments manufacturers may be impacted by today's action if they generate wastes containing constituents that receive new LDR standards and are newly added to Appendix VIII. There may also be cost impacts to Subtitle D landfill operators if they would need to install tanks and/or piping systems in order to take advantage of the proposed temporary deferral under the Clean Water Act.

a. Introduction and Scope of This Section

The value of any regulatory action is traditionally measured by the net change in social welfare that it generates. The Economic Assessment conducted in support of today's proposed rule examines both costs and qualitative benefits in an effort to assess the overall net change in social welfare. The primary focus of the Economic Assessment document is on compliance costs and economic impacts. In this section, we summarize our analytical methodology and findings for the dyes

and pigments production industries. We also briefly review our findings relative to impacts on other industries and potential impacts on landfill operators. General benefits anticipated from the rule, as proposed, are examined in a qualitative format. The information presented here is derived from the Economic Assessment. This document is available in the docket established for today's action. Interested readers are encouraged to read and comment on the data, methodology, findings, and limitations presented in this document.

b. Industry Profile

This proposed listing action affects the Synthetic Organic Dye and Pigment Manufacturing industries. These industries are identified under the Standard Identification Classification (SIC) as 2865, and under the North American Industrial Classification System (NAICS) as 325132. Our review of publically available data, combined with comments from the dyes and/or pigments industry associations has identified a total of 37 facilities that may be subject to the proposed listing. Of this total, twenty are pigment producers, eighteen are dye producers, and six produce FD&C products. Six of the facilities produce both dyes and pigments and one facility produces all three. The 37 facilities are operated by 29 different companies, fifteen of which are defined as "small businesses" under the Small Business Administration size standards.

The World market value for all organic dyes and pigments is estimated at \$14 billion for 2003, with the U.S. market representing about 20 to 24 percent of this total. The U.S. market for all organic dyes and/or pigments products generating wastes of concern represents approximately 60 to 65 percent of the total market. The U.S. market for organic dyes and pigments is forecast to grow by about 3 percent per year through 2005.

Increased imports, pricing pressures, and rising costs are forcing some U.S. based organic dyes and/or pigments manufacturers to discontinue or modify production. Other manufacturers appear to be switching from onsite manufacturers to importers and/or formulators. Mergers and consolidations have been the general trend over the past ten years for many U.S. based manufacturers. However, recent years have also seen an increase in the number of small, low-cost entrepreneurial manufacturers, finishers and formulators who have been able to carve out market shares which were once held by the major companies. U.S. owned dye companies supply