

engineering judgement" and are described further in the economic analysis background document.

Costs for the RCRA Part B Permit were estimated using "Estimated Costs for the Economic Benefits of RCRA Noncompliance" dated September 1997. General facility requirements and incinerator requirements were included for the construction and operation of an onsite sludge rotary kiln. Under the traditional listing option, we estimate that between four and eight of the 37 facilities would seek a RCRA permit to operate an onsite incinerator, because it is more economical than managing the waste in an offsite commercial incinerator. A cost of \$51,924 for the general facility requirements and \$26,495 for the incinerator requirements was determined. Permit costs were annualized over 10 years at a 7 percent rate for borrowing capital (0.14238).

Incremental corrective action costs associated with unpermitted facilities include the cost to conduct a RCRA Facility Investigation (RFI), a Corrective Measures Study (CMS), and remediate solid waste management units (SWMUs) and areas of concern (AOCs). Depending upon the option analyzed, some of the unpermitted facilities may be brought into the RCRA program if they seek a RCRA Part B permit for incinerators. RCRA corrective action is typically triggered by facilities seeking a RCRA permit. As noted above, under the traditional listing option, we estimate that between four and eight of the 37 facilities will seek a RCRA permit to operate an onsite incinerator because it is more economical than managing it in an offsite commercial incinerator. These facilities may incur corrective action costs. Potential corrective action costs were not estimated for this analysis.

g. Costs and Economic Impacts on the Affected Industries

Our analysis for this proposed rulemaking evaluated the Agency's preferred approach for management of the wastes of concern, and two primary regulatory options. The Agency's preferred approach is a mass loadings-based (with contingent management) rulemaking. The two options are a no-list—no action determination, and the standard or traditional listing approach. Beyond the time and effort required to read and understand the final rule, the no-list option would result in affected manufacturers incurring no incremental waste management and/or administrative costs. The Agency preferred mass loadings-based approach, and the traditional listing option are discussed below.

Incremental compliance costs for the proposed mass loadings-based approach with contingent management were found to range from \$0.6 to \$4.3 million per year, depending upon total waste quantity managed, nonconditional mass loading levels, and the number of affected facilities. These findings generally assume baseline waste management in an unregulated clay-lined landfill and compliance management in a Subtitle D landfill meeting \$ 258.40 standards.⁶⁸ Actual baseline nonwastewater management may be in lined municipal landfills meeting \$ 258.40 standards for most or all potentially impacted facilities. If this is the case, incremental costs and any associated benefits under the Agency preferred approach would be less than estimated. See Section 4.4.1 and Table 4-7 in the Economic Assessment background document for a complete discussion. The high-end estimate assumes, in part, Subtitle C incineration for all nonwastewaters generated at facilities identified as using toluene-2,4-diamine. Under this scenario, the conditional mass loading level for toluene-2,4-diamine is assumed to be exceeded at these facilities. Additional sampling and analysis, transport, and administrative costs are included, where appropriate. Corporate level economic impacts under this approach were found to be less than 3 percent of total gross annual revenues for but one of the affected companies.

Incremental compliance costs for the standard, or traditional listing option are estimated to range from \$9.4 to \$15.9 million per year, depending upon the total quantity of waste impacted.⁶⁹ This estimate also includes additional sampling and analysis, transport, administrative, RCRA Part B, and corrective action costs, where appropriate. Corporate level economic impacts under this option were found to be less than 3 percent of total gross annual revenues for 93 percent of all affected companies.

h. Impacts on Other Industries

This regulation may result in impacts to other industries. Specifically, two categories may be impacted: Municipal and industrial solid waste landfill operators who previously accepted the

wastes of concern, and, non dyes and/or pigments generators of hazardous waste containing one or more of the five Constituents of Concern that are not currently on Appendix VIII or have LDR requirements.

Landfills: A common disposal practice for currently nonhazardous dye, pigment, and FD&C waste is offsite disposal in municipal solid waste landfills. The leachate derived from this waste has traditionally been collected and recirculated, treated, and/or disposed. Because of the proposed listing, collected leachate from landfills (*i.e.*, cells) that have accepted these wastes may be hazardous under the Derived-from Rule (*see* Section IV.E). Also, when the leachate from these two wastes mixes with leachate from other wastes, the entire leachate quantity from the affected landfill (or cell) may be considered hazardous under the Mixture Rule. By changing the regulatory status of the proposed wastes, the collected leachate from the disposal of these wastes may be covered under Subtitle C of RCRA. Municipal Solid Waste (MSW) and other landfills that have previously accepted and generated leachate from these wastes (received in quantities above mass loadings levels of concern) may face increased leachate management costs. This would be an indirect impact of the rule, as proposed.

The EPA report, "Characterization of Municipal Solid Waste in the United States: 1997 Update," EPA 530-R-98-007, May 1998, estimates there were approximately 2,400 MSW landfills in the contiguous U.S. for 1996. Based on the total number of potentially affected dye, pigment, and FD&C facilities, and their locations, it is likely that no more than fifty MSW landfills received wastes of concern (in any quantity). Leachate quantities generated by each of these landfills are dependent upon the geographic location, area, leachate collection system design, and operation of the landfill.

We are proposing a Clean Water Act temporary deferral for potentially affected landfills under today's action. This temporary deferral would exempt the landfill leachate from RCRA Subtitle C regulation if it is managed pursuant to certain conditions. After two years, impacted facilities would no longer be allowed to manage the exempt leachate in surface impoundments as nonhazardous. Under this approach, selected landfills may choose to modify their facilities, or implement expanded personnel training programs and/or alternative operation and maintenance procedures. Costs associated with these activities have not been quantified but are likely to be negligible.

⁶⁸ Baseline nonwastewater management in an unregulated clay lined landfill was assumed where facility-specific information was restricted or not available.

⁶⁹ **Note:** An extreme high-end scenario was examined where all facilities were required to burn all waste under full Subtitle C requirements. Total annualized costs under this scenario were estimated at \$26 million. This scenario was examined for high-end bounding purposes only and is not considered to be a feasible regulatory option.