11736

the Executive Order. The analysis considers compliance cost and economic impacts for both characteristic wastes and newly listed wastes affected by this rule. For characteristic wastes, the potential cost impacts of this rule depend on whether facilities' current wastewater treatment systems will meet the UTS levels or if additional treatment will be required. If current treatments are adequate, facilities will only incur administrative costs to have their permits revised. A rough estimate would be that there would be one-time incremental costs of \$0.9 to \$2.9 million for all incrementally impacted facilities. However, at the high end, if current wastewater treatment systems need to be augmented with additional treatment steps, the incremental compliance costs for today's rule could be as high as \$1 million per affected facility. If 20% of the firms comply by installing additional treatment, treatment costs are estimated to be \$6.5-\$18.1 million/year. The Agency does not have adequate data to estimate how many, if any, facilities may require modification to their treatment facilities. The Agency requests comment and data on how often additional treatment may be required and what type of treatment may be needed.

For newly listed wastes, the costs are substantially higher and will be incurred each year. These costs range from approximately \$11.9 million to \$47.3 million and are attributable primarily to thermal treatment of spent aluminum potliner wastes (K088). Therefore, today's proposed rule may be considered an economically significant rule. Because today's proposed rule is significant, the Agency analyzed the costs, economic impacts, and benefits.

This section of the preamble for today's proposed rule provides a discussion of the methodology used for estimating the costs, economic impacts and the benefits attributable to today's proposed rule, followed by a presentation of the cost, economic impact and benefit results. More detailed discussions of the methodology and results may be found in the background document, "Regulatory Impact Analysis of the Proposed Rule for the LDR Phase III Newly Listed and Identified Wastes," which has been placed in the docket for today's proposed rule.

## 1. Methodology Section

In today's proposed rule, the Agency is establishing treatment standards for the following wastes: end-of-pipe standards for ICR wastewaters managed in CWA and CWA-equivalent systems, and Class I nonhazardous UIC wells, TC pesticide (D012-17) and organic (D018-43) wastewaters managed in CWA and CWA-equivalent systems, and Class I nonhazardous UIC wells (all UIC managed volumes are covered under a different section of the preamble for today's rule), and newly listed wastes from three industries - organobromines, spent aluminum potliners, and carbamates.

a. Methodology for Estimating the Affected Universe. In determining the costs, economic impacts, and benefits associated with today's rule, the Agency estimated the volumes of waste affected by today's rule. The procedure for estimating the volumes of ICR waste and TC organic and pesticide waste, and newly listed wastes affected by today's rule is summarized below.

First, the Agency examined all industries which might be likely to produce wastes covered under today's standards. Through reviewing comments to the Supplemental Notice of Data Availability published by the Agency in 1993, reviewing runs from the Biennial Reporting System (BRS) of volumes generated from particular industry sectors, as well as discussions with industry, and discussions with the Office of Water at EPA HQ, the Agency narrowed it down to 16 industries which would potentially have significant volumes of wastewater affected by today's rule.

Using a host of databases and/or sources, the Agency collected data on the quantities, constituents, and concentrations of the volumes affected from each of the 16 industries. In addition, the Agency gathered any data on current management practices, plant design, etc. The following sources were used: Section 308 data from the Office of Water, Industrial Studies Database (ISDB), 1991 Biennial Reporting System (BRS), primary summary and development documents from effluent guidelines, Toxicity Characteristic Regulatory Impact Analysis documents, data gathered in the capacity analysis performed for today's rule, as well as comments from potentially affected industries.

The Agency obtained volume information for the newly listed wastes—organobromines (K140), spent aluminum potliners (K088), and carbamate wastes (K156–161)—from the listing documents prepared for these wastes during the listing procedure.

b. Cost Methodology. The cost analysis estimates the national level incremental costs which will be incurred as a result of today's rule. The cost estimates for both the baseline and post-regulatory scenarios are calculated employing: (i) The facility wastestream volume, (ii) the management practice (baseline or post-regulatory) assigned to that wastestream, and (iii) the unit cost associated with that practice. Summing the costs for all facilities produces the total costs for the given waste and scenario. Subtracting the baseline cost from the post-regulatory cost produces the national incremental cost associated with today's rule for the given waste.

The cost methodology section includes three subsections: (i) ICR and TC Pesticide and Organic Wastes Managed in CWA and CWA-Equivalent Systems, (ii) Newly Listed Wastes, (iii) Testing and Recordkeeping Costs. (The costs for wastes managed in Class I nonhazardous waste deep wells are discussed in section B.)

(i) ICR and TC Pesticide and Organic Wastes Managed in CWA and CWA-Equivalent Systems. The Agency employed the following approach to estimate the incremental costs for the ICR and TC wastes. First, using information available on the affected industries, the Agency created averagesized model facilities for each industry. Second, for a given model facility in an affected industry, the Agency used available unit cost data to develop costs for the baseline management practices (usually treatment in surface impoundments followed by discharge into receiving waters through a NPDES permit). Third, the Agency used data on the constituents and waste quantities for each industry, where applicable, to determine the necessary treatment required to reduce to UTS levels the constituents present. Fourth, the Agency used unit costs to develop costs for the post-regulatory management practices for the treatment requirements determined in the third step. Fifth, subtracting the baseline from the postregulatory costs for an average facility in an industry sector and using the data available on the number of facilities affected within each industry, the Agency was able calculate the incremental cost for a given industry. Sixth, summing costs across affected industries, the Agency determined the incremental cost for the rule for the endof-pipe treatment standards.

(ii) Newly Listed Wastes. The costs for treatment of organobromines (K140), spent aluminum potliners (K088), and carbamate wastes (K156–161) will be determined using data from the listings on baseline management practices, judgment on the technology(s) required to meet the UTS standards for these wastes, and available unit cost data.

(iii) Testing and Recordkeeping Costs. Testing and recordkeeping costs, including costs that facilities will incur for ensuring that hazardous constituents