

APPENDIX B

SUMMARY OF REFORMULATION COST ESTIMATES FROM  
PUBLIC COMMENTS

At proposal, EPA's estimate for per product reformulation cost was based on an estimate for a hypothetical new coating included in a presentation to the Regulatory Negotiation committee (July 28, 1993). This lump-sum cost estimate was \$250,000, implemented over three years at \$83,333 per year.

During the public comment period, EPA solicited public input regarding the size and nature of reformulation costs to gauge the reasonableness of (and potentially modify) the estimate used in the EIA. The public comments on costs were reviewed for this purpose. Costs were organized along the following dimensions:

- technical staff training
- prioritization of products needing reformulation
- survey available materials
- reformulate to desired properties
- performance tests
- field tests
- marketing costs
- production costs (labels)
- sales training
- executive expenses

Upon review of the public comments on costs, eleven of the responses appeared to provide comparable information for estimating lump-sum reformulation costs per product. Other responses presented costs for all of the company's products, but did not provide information on the number of products to enable computation of cost per product. Other responses could not be used either because of incompleteness or lack of clarity about the information provided. A list of and summary statistics for the eleven potentially comparable responses plus the original Regulatory Negotiation committee estimate are presented in Table B-1. Note that two of the estimates are alternative interpretations of the same estimate. One interpretation estimates per-product cost by dividing the company's total cost estimate by all noncompliant formulas. The other interpretation is that the total cost number is divided by the subset of formulas that are most feasible to reformulate. It was unclear from the comment, which number the company used to estimate its total compliance costs, so both interpretations were used to provide a range.

Cost per product estimates (in 1991 dollars) range from \$576 to \$272,000, with a mean value of \$86,326. The mean value was rounded up to \$87,000 to provide the model product cost estimate used throughout the analysis. As the summary statistics in Table 2-1 indicate, the central tendency cost estimates (mean and median) are well-below the \$250,000 lump-sum cost per product estimate used in the EIA at proposal, ranging anywhere from 20 to 35 percent of that estimate.

In summary, a review of the public comments related to reformulation costs suggests that EPA may have significantly overestimated the per-product costs by a factor of three to five times at proposal. Because it is based on information

TABLE B-1. REFORMULATION-RELATED COST ESTIMATES

Public Comment Docket Number	Estimated Cost per Product (current \$)	Estimated Cost per Product (\$ 1991) <sup>a</sup>
IV-D-217 (Interpretation 1, Total cost divided by all noncompliant products)	15,764	13,832
IV-D-217 (Interpretation 2, Total cost divided by most feasible reformulations)	48,220	42,311
IV-D-108	63,500	55,719
IV-D-110	13,000	11,407
IV-D-130	20,300	17,812
IV-D-93	656	576
IV-D-152	122,417	107,416
IV-D-36	51,210	44,935
IV-D-38	310,000	272,013
IV-F-1e	150,000	131,619
IV-D-182	96,000	84,236
II-E-52	267,000	254,038
<i>Summary statistics</i>		
N =		12
Min		576
Max		272,013
Mean		86,326
Median		50,327

<sup>a</sup> Converted from year in which estimate is given (usually 1996) to 1991 using the Gross Domestic Product Price Deflator.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, August 1997.

provided in the public comment period, the revised estimate used in this analysis should provide a more valid estimate of reformulation-related costs than the estimate used at proposal. Alternative methods for annualizing the lump-sum cost estimate of \$87,000 are presented in the main text.

