

C. Estimated Economic Impacts on Businesses

As part of our rulemaking process, EPA estimated potential economic impacts of today's proposed regulation. In our analysis, we assumed that capital costs are annualized over 10 years and that the discount rate for determining net present value is 7.0%. We found the following impacts from the regulatory use condition on the iPB content in nPB formulations:

- In general, users in the solvent cleaning sector and aerosol solvent end use are already using nPB formulations containing less than 0.05% iPB by weight, and will experience little or no rise in prices. Most of the costs of compliance would fall upon adhesives users, since some of them currently use nPB formulations containing as much as 1% iPB.

- If today's proposed rule were to become final, the cost of the regulatory condition to the user community would be in the range of \$2 to \$3 million per year.

EPA also considered potential costs end users could incur if they implemented the recommended acceptable exposure limit. Qualitatively, EPA found that those users using nPB-based solvents in a vapor degreaser would save money by reducing solvent losses, and that the savings would

recover the costs of emissions controls (e.g., secondary cooling coils, automated lifts or hoists) within a year of installation. Based on evidence from solvent suppliers, EPA believes that some of those users would have chosen to use nPB in order to avoid meeting requirements of the national emission standard for halogenated solvents cleaning and that they would only become aware of the potential savings due to reduced solvent usage as a result of today's proposal (Ultronix, 2001; Albemarle, 2003). Based on the experience of companies that assist their customers in meeting an exposure limit of 25 ppm for nPB, we assumed that 75% to 90% of nPB users in the non-aerosol solvent cleaning sector already have exposure levels of 25 ppm or less. Of those nPB users with exposure levels above 25 ppm, we examined the cost associated with reducing emissions by 50% to 75%. EPA also found:

- Balancing the savings due to reduced solvent loss and the cost of emission controls on vapor degreaser, the range of costs for solvent cleaning ranged from a net savings of \$83,900 to a cost of \$2000 per user.

- Installing ventilation equipment was a minor expense for aerosol solvent users (\$124 to \$1230 annualized cost per user).

- The more extensive ventilation equipment necessary for adhesive users was more expensive (\$24,000 to \$39,000 annualized cost per user).

- EPA estimated that full implementation of the recommended workplace exposure guideline across all nPB users in all three industrial sectors would range in cost from a potential net savings up to \$1.9 million to a cost of \$5.5 million dollars per year. The value will depend on the number of users that attempt to meet the recommended exposure guideline, the initial exposure level of cleaning solvent users, the price of nPB, and the amount of emission control equipment or ventilation equipment installed. The high end of the range likely would be an overestimate of actual impacts because, among other things, it does not consider that some users may choose to switch to other alternatives.

- When the potential costs of compliance with the regulatory use condition and implementation of the recommended acceptable exposure limit are considered together, EPA found the total cost to range from a savings of \$0.1 million to a cost of \$8.1 million.

For purposes of comparison with these costs numbers, average values of shipments as a proxy for revenues for different types of businesses are as follows:

TABLE 3.—EXAMPLES OF NPB USERS BY NAICS CODE OR SUBSECTOR AND AVERAGE ANNUAL VALUE OF SHIPMENTS

NAICS code for subsector code	NAICS description	Example Uses of nPB	Average annual value of shipments by each company in subsector (million)
326150	Urethane and other foam product (except polystyrene) manufacturing.	Carrier solvent in adhesives to stick together foam pieces in foam fabrication.	10.1
332	Fabricated Metal Product Manufacturing.	Metals cleaning to remove oil, grease, and wax from metal parts.	3.9
333	Machinery Manufacturing	Metals cleaning to remove oil, grease, and wax from metal parts.	8.9
334	Computer and Electronic Product Manufacturing.	Electronics cleaning, and aerosol solvent use to remove solder flux from circuit boards.	25.2
336	Transportation Equipment Manufacturing.	Aerosol solvent use for cleaning aerospace equipment; carrier solvent in adhesives for aircraft seating.	44.6
337	Furniture and Related Product Manufacturing.	Carrier solvent in adhesives for cushions or kitchen countertops; metals cleaning to remove grease from metal furniture parts.	3.1

For more detailed information, see section X.C. below and EPA's analysis in the docket (US EPA, 2003).

VI. How is EPA Responding to Comments on the Advance Notice of Proposed Rulemaking (ANPRM) and December 18, 2000 Notice of Data Availability?

EPA received 66 comments on the February 18, 1999, Advance Notice of

Proposed Rulemaking (64 FR 8043) from 61 commenters. Forty-eight commenters advocated listing nPB as an acceptable substitute for CFC-113 and methyl chloroform under SNAP; ten commenters opposed listing nPB as acceptable; and three commenters responded to the information requests contained in the ANPRM without taking a position on the acceptability of nPB. Close to one-third of the commenters

were manufacturers of products that require solvent cleaning. Other commenters included chemical manufacturers, solvent and lubricant distributors, consultants, academicians, adhesive manufacturers, product repair companies, vapor degreaser manufacturers, an aerosol manufacturer, an adhesive distributor, a machinery distributor, the U.S. Army, the U.S. Department of Energy, a solvent