

In summary, the base estimate using the VSL approach yields a total monetized benefit estimate of \$16.1 billion + B (1999 dollars) in 2005 when using a 3 percent interest rate (or approximately \$15.4 billion + B when using a 7 percent interest rate). The alternative estimate totals approximately \$2.4 billion + B when using a 3 percent interest rate (or approximately \$2.6 billion + B when using a 7 percent interest rate).

Using the results of the benefit analysis, we can use benefit-cost comparison (or net benefits) as another tool to evaluate the reallocation of society's resources needed to address the pollution externality created by the operation of industrial boilers and process heaters. The additional costs of internalizing the pollution produced at major sources of emissions from industrial boilers and process heaters are compared to the improvement in society's well-being from a cleaner and healthier environment. Comparing benefits of the proposed rule to the costs

imposed by alternative ways to control emissions optimally identifies a strategy that results in the highest net benefit to society. In the case of the proposed rule, we are proposing only one option, the minimal level of control mandated by the CAA, or the MACT floor. Other alternatives that lead to higher levels of control (or beyond-the-floor alternatives) lead to higher estimates of benefits net of costs, but also lead to additional economic impacts including more substantial impacts to small entities. For more details, please refer to the RIA for the proposed rule.

Table 6 of this preamble presents a summary of costs, benefits, and net benefits (*i.e.*, benefits minus costs). Based on estimated compliance costs associated with the proposed rule and the predicted change in prices and production in the affected industries, the estimated social costs of the proposed rule are \$780 million (1999 dollars). Social costs are different from compliance costs in that social costs take into account the interactions

between affected producers and the consumers of affected products in response to the imposition of the compliance costs.

Therefore, the Agency's base estimate of monetized benefits net of costs is \$15.2 billion + B (1999 dollars) in 2005 when using a 3 percent discount rate (or approximately \$15 billion + B when using a 7 percent discount rate). However, using the more conservative alternative estimate of benefits, net benefits are \$1.5 billion + B (1999 dollars) under a 3 percent discount rate (or approximately \$1.7 billion + B when using a 7 percent discount rate).

In both cases, net benefits would be greater if all the benefits of the HAP and other pollutant reductions could be quantified. Notable omissions to the net benefits include all benefits of HAP reductions, including reduced cancer incidences, toxic morbidity effects, and cardiovascular and CNS effects. It is also important to note that not all benefits of SO<sub>2</sub> and PM reductions have been monetized.

TABLE 6.—ANNUAL NET BENEFITS OF THE INDUSTRIAL BOILERS AND PROCESS HEATERS NESHAP IN 2005 <sup>A</sup>

	MACT floor (million 1999\$)	Beyond the MACT floor (million 1999\$)
Social Costs <sup>B</sup> .....	\$837 .....	\$1,923
Social Benefits: B, C, D		
HAP-related health and welfare benefits .....	Not monetized .....	Not monetized.
PM-related welfare benefits .....	Not monetized .....	Not monetized.
SO <sub>2</sub> and PM-related health benefits:		
Primary Estimate		
—Using 3% Discount Rate .....	\$16,300 + B .....	\$17,230 + B.
Using 7% Discount Rate .....	\$15,430 + B .....	\$16,310 + B.
Alternative Estimate		
—Using 3% Discount Rate .....	\$2,350 + B .....	\$2,380 + B.
—Using 7% Discount Rate .....	\$2,585 + B .....	\$2,620 + B.
Net Benefits (Benefits – Costs): C, D		
Primary Estimate		
—Using 3% Discount Rate .....	\$15,465 .....	\$15,305 + B.
—Using 7% Discount Rate .....	\$14,595 .....	\$14,385 + B.
Alternative Estimate		
—Using 3% Discount Rate .....	\$1,515 .....	\$455 + B.
—Using 7% Discount Rate .....	\$1,750 .....	\$700 + B.

<sup>A</sup> All costs and benefits are rounded to the nearest \$5 million. Thus, figures presented in this table may not exactly equal benefit and cost numbers presented in earlier sections of the chapter.

<sup>B</sup> Note that costs are the total costs of reducing all pollutants, including HAP as well as SO<sub>2</sub> and PM<sub>10</sub>. Benefits in this table are associated only with PM and SO<sub>2</sub> reductions.

<sup>C</sup> Not all possible benefits or disbenefits are quantified and monetized in this analysis. Potential benefit categories that have not been quantified and monetized are listed in Table 8–13. B is the sum of all unquantified benefits and disbenefits.

<sup>D</sup> Monetized benefits are presented using two different discount rates. Results calculated using 3 percent discount rate are recommended by EPA's *Guidelines for Preparing Economic Analyses* (U.S. EPA, 2000a). Results calculated using 7 percent discount rate are recommended by OMB Circular A–94 (OMB, 1992).

## V. Public Participation and Requests for Comment

The ICCR Federal Advisory Committee (*i.e.*, the Coordinating Committee), which is discussed previously in this preamble, was

designed and created to foster active participation from stakeholders, including environmental groups, regulated industries, local governments, Federal agencies, and State and local regulatory agencies. The stakeholders

were able to participate in the development of FACA committee recommendations on many regulatory issues.

The ICCR Coordinating Committee also encouraged the public to provide