factors that affect human variability such as age, genetics, and general health status (e.g., presence of pre-existing disease). The EPA does not have the type of current detailed data on each of the BLR or WSR facilities covered by this rule, and the people living around the facilities, that would be necessary to conduct an analysis to determine the actual population exposures to epichlorohydrin and resulting health effects. Therefore, EPA does not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the promulgated standard will substantially reduce emissions and exposures to the level achievable with maximum achievable control technology. However, due to the volatility and relatively low potential for bioaccumulation of epichlorohydrin, air emissions are not expected to deposit on land or water and cause subsequent adverse health or ecosystem effects.

The alternatives considered in the development of this regulation, including those alternatives selected as standards for new and existing BLR and WSR sources, are based on process and emissions data received from every existing BLR and WSR facility known to be in operation. The EPA met with industry several times to discuss this data. In addition, facilities, State regulatory authorities, and environmental groups had the opportunity to comment on the proposed standards and provide additional information during the public comment period which followed proposal. Some facilities did provide comments; these comments were considered, and in some cases, the standards were changed in response to the comments. Of major concern to the commenters was the proposed format of the standards for new sources. After considering various alternatives, the EPA decided the format of the standard could be changed in a way which allays their concerns.

The final standards give existing facilities 3 years from the date of promulgation to comply. This is the maximum amount allowed under the Clean Air Act (CAA). New facilities are required to comply with the standard upon startup. The EPA sees no reason why new facilities would not be able to comply with the requirements of the standards upon startup. The number of existing sources affected by this rule is less than 20; therefore, EPA does not believe that required retrofits or other actions cannot be achieved in the time frame allotted.

Included in the final rule are methods for determining initial compliance as well as monitoring, recordkeeping, and reporting requirements. All of these components are necessary to ensure that sources will comply with the standards both initially and over time. However, EPA has made every effort to simplify the requirements in the rule. The Agency has also attempted to maintain consistency with existing regulations by either incorporating text from existing regulations or referencing the applicable sections, depending on which method would be least confusing for a given situation.

As described in the preamble to the proposed rule, two regulatory alternatives above the MACT floor were considered for BLR and WSR. For BLR, the final standards reflect the option with the lowest overall cost effectiveness in dollars per megagram of HAP emission reduction. For WSR the MACT floor, as well as the two regulatory alternatives above the floor, were found to have relatively high cost effectiveness. However, an alternative standard was specified that allows facilities to implement the requirements of subpart H to control emissions from equipment leaks. The alternative standard is much more cost effective, and will result in a greater overall HAP emission reduction. However, the alternative standard is not being required because the cost was considered to be too high to justify requiring more control than that achieved at the MACT floor. Section 112(d) of the Clean Air Act requires standards to be set at a level no less stringent than the MACT floor but requires consideration of the cost of achieving further reductions before requiring reductions beyond the MACT floor.

Representatives from other interested EPA offices and programs, as well as representatives from State regulatory agencies, are included in the regulatory development process as members of the Work Group. The Work Group is involved in the regulatory development process, and must review and concur with the regulation before proposal and promulgation. Therefore, EPA believes that the implications to other EPA offices and programs has been adequately considered during the development of these standards.

## IV. Summary of Environmental, Energy, Cost, and Economic Impacts

The environmental impacts for this rule were not impacted significantly by changes made to the rule between proposal and promulgation. The promulgated standards reduce HAP emissions from existing BLR sources by 95 megagrams per year (Mg/yr) (105 tons per year (tons/yr)) from the baseline level, a reduction of 78 percent from baseline. Emissions of HAP from existing WSR sources will decrease by 2 Mg/yr (2 tons/yr) if facilities elect to comply with the standard for process vents, storage tanks, and wastewater systems, a reduction of 7 percent from baseline. If facilities elect to comply with the alternative standard (comply with the 40 CFR part 63, subpart H requirements for equipment leaks), HAP emissions will decrease by 14 Mg/yr (15 tons/yr), a reduction of 52 percent from baseline.

No additional wastewater generation results from compliance with the standards as a result of changing the new source standard for BLR and WSR process vents, storage tanks, and wastewater systems emission sources from an equipment-based standard to a performance-based standard. No solid waste is generated from the BLR or WSR production processes.

The energy impacts for this rule were not affected by changes made to the rule between proposal and promulgation. The standards for the BLR source category require energy usage of  $1.5 \times$ 10<sup>6</sup> Btu per year (Btu/yr). Energy usage for the WSR will be  $4 \times 10^6$  Btu/yr if sources comply with the standard for process vents, storage tanks, and wastewater systems; however, if sources choose to comply with the alternative standard (subpart H), the additional energy usage will be negligible. The cost impacts for this rule were not affected by changes made to the rule between proposal and promulgation. Nationwide, the total annual cost of the standard to the BLR industry will be \$140,000. If all WSR sources choose to comply with the standard for process vents, storage tanks, and wastewater systems, the total cost of this regulation to the WSR industry will be \$520,000. If all WSR sources decide to comply with the alternative standard (subpart H), the total annual cost will be \$52,000.

## V. Significant Changes to the Proposed Standards

## A. Public Participation

Prior to proposal of this rule a meeting of the National Air Pollution Control Techniques Advisory Committee (NAPCTAC) was held to discuss the development of the draft rule for epoxy resins and non-nylon polyamide resins production. That meeting was held on November 18, 1992. The meeting was open to the public, and each attendee was given an