In determining whether to propose pretreatment standards for the four manufacturing subcategories, EPA first identified the pollutants of concern present in the wastewater characteristic of the particular subcategories. EPA determined from the available data that as many as ten priority pollutants and 45 nonconventional pollutants could be present, in varying amounts and frequencies, in the wastestreams of facilities in all four manufacturing subcategories (excluding cyanide and ammonia for subcategories B and D.) In selecting the pollutants for analysis and in performing the pass-through determination, EPA made three threshold decisions in view of the data available to it.

First, with respect to subcategories B and D, EPA used wastestream data pertaining to indirect discharging facilities rather than direct discharging facilities, because, for reasons EPA is unable to explain, the available data indicated that the wastestreams of direct dischargers were significantly different from and hence unrepresentative of the wastestreams for indirect dischargers in those subcategories. Accordingly, EPA concluded that it would be most appropriate to identify the pollutants of concern and ultimately evaluate the need for pretreatment standards based on the wastewater characteristic of the indirect dischargers that would be subject to such standards.

Second, based on that wastestream data, EPA identified cyanide destruction plus steam stripping followed by advanced biological treatment for subcategory A and/or C facilities and advanced biological treatment for subcategory B and/or D facilities as the best available technology economically achievable to remove the pollutants of concern from those wastestreams. EPA then used these technologies in its pass-through analysis as the basis for comparing the removal efficiencies accomplished through secondary treatment by POTWs.

Third, EPA made pass through determinations by pollutant for all four manufacturing subcategories together, because the data from indirect dischargers data available to EPA indicate that steam stripping is applicable to all four subcategory wastestreams at indirect discharging facilities. Based on these decisions, EPA then compared removal efficiencies achievable by well-operated POTWs employing secondary treatment with those achievable by direct dischargers employing the relevant technology for those subcategories. In co-proposal (1), EPA determined for subcategories A and C that 52 pollutants pass through POTWs and for subcategories B and D that 50 pollutants pass through, based on the information available to it at this time.

For subcategories A and C, EPA also concluded that ammonia passes through because POTWs generally do not have the nitrification capability that comprises part of the technology basis for the proposed BAT limitations for those subcategories. With respect to cyanide for subcategories A and C, EPA found that this pollutant passes through POTWs because the removal of cyanide by BAT-level cyanide destruction units at direct discharging plants with subcategory A and C operations is significantly greater than the documented removals by POTWs with advanced secondary treatment. These findings regarding ammonia and cyanide are not affected by alternative co-proposals (1) and (2).

Based on the pass-through determination in co-proposal (1), EPA proposes to set pretreatment standards for 45 priority and nonconventional organic pollutants for all subcategories in addition to cyanide and ammonia for subcategories A and C. In determining whether these volatile and semi-volatile organic pollutants pass through POTWs, EPA employed its traditional pass through methodology as described above. EPA determined that dischargers in all subcategories could remove up to 99 percent or more of the volatile and semi-volatile organic pollutants from their wastestreams using the BAT technology basis which includes in-plant steam stripping for subcategory A and/or C facilities.

Relying on data reported in the Domestic Sewage Study, EPA then ascertained the removal efficiencies achieved by POTWs for those pollutants using secondary treatment. In evaluating removal efficiencies by POTWs for volatile and semi-volatile pollutants, EPA notes the fact that some of the removal occurring after wastewater leaves a manufacturing facility results from volatilization of these pollutants in the head works and unit operations preceding biological treatment of the POTWs. EPA has consistently refused in these circumstances to regard transfers of pollutants from wastewater to the air as treatment. See, e.g., 59 FR at 50665 (Pesticides guidelines); 58 FR at 36885 (Organic Chemicals, Plastics and Synthetic Fibers guidelines). Therefore, because of this volatilization, the quantity of a particular volatile or semi-volatile pollutant actually available to be removed by the POTW's secondary treatment works was less than the quantity of that pollutant present in the wastestream at the time it entered the POTW collection system. Thus, the POTW treated—and hence removed—a smaller percentage of the pollutant than it would have achieved through its secondary treatment if volatilization en route had not occurred. For a detailed discussion of volatilization in the context of EPA's pass through determinations for all pollutants in all subcategories, see Section 17 of the TDD.

The pass-through determinations reflected in co-proposal (1) are supported by POTWs that treat wastewater generated by pharmaceutical manufacturing facilities. In a letter sent to EPA dated February 14, 1995, the Association of Metropolitan Sewerage Agencies (AMSA) urged EPA to establish national pretreatment standards for organic pollutants found in pharmaceutical wastewater. A copy of this letter is in the rulemaking docket. AMSA argued that a decision by EPA not to regulate these pollutants at the national level would shift the financial, technical and legal burden of regulation to POTWs, which would need to establish local limits for these pollutants on a plant-by-plant, pollutant-by-pollutant basis. Among other things, AMSA asserted that many of its POTW member organizations lack the on-site technical expertise to develop limits for the wide variety of volatile organic pollutants of potential concern. It further asserted that even where such expertise exists, the costs associated with establishing local limits in the absence of federal standards would be so significant that they would amount to unfunded mandates. AMSA also noted that pretreatment standards established at the national level would facilitate the enforcement of limits to protect against volatility, exfiltration and flammability concerns. AMSA concluded that promulgation of national pretreatment standards such as those contained in co-proposal (1) would be the most environmentally sound, timely, and cost effective method of addressing these pollutants of concern. EPA solicits comment on these arguments in support of co-proposal (1). See Section XIV, solicitation number 24.4.

Under co-proposal (2), EPA is considering a finding of no pass-through for 33 priority and nonconventional pollutants in all four subcategories. EPA is soliciting comments and data with respect to this finding. See Section XIV, solicitation number 24.3. EPA has developed co-proposal (2) because of concerns expressed by industry representatives that EPA's pass-through analysis under co-proposal (1) may not be correct for some of the 33 volatile organic pollutants such as methanol,