

ethanol, and acetone. EPA believes that the additional data and comments received concerning the pass-through analysis for these 33 volatile organic pollutants will enable the Agency to make a final pass-through determination for these pollutants. EPA notes that co-proposal (2) does not affect EPA's pass-through findings regarding the 12 highly strippable organic pollutants (and cyanide and ammonia for subcategories A and C) for which EPA proposes to establish PSES independently.

EPA is not proposing pretreatment standards for several pollutants found in subcategory A, B, C and D facility wastestreams for the following reasons. (This part of the proposal is not affected by the issues addressed in co-proposals (1) and (2).) EPA has concluded for all four manufacturing subcategories that phenol does not pass through for the reasons set forth in the **Federal Register** Notices announcing the promulgation of effluent limitation guidelines and standards for the Pesticide Chemicals and Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) industries. See 59 FR 50638, 50664-65 (September 28, 1993); 58 FR 36872, 36885-86 (July 9, 1993). In addition, EPA does not have sufficient data at this time to determine whether *acetonitrile* and *polyethylene glycol 600* pass through POTWs and therefore does not propose pretreatment standards to control them. Similarly, EPA lacks sufficient data to make a pass-through determination for COD generated by facilities with subcategory A and/or C operations, although EPA is concerned that certain refractory organic waste materials measured as COD that are generated by such facilities may pass through POTWs. (EPA has made a preliminary judgment that COD generated by facilities with subcategory B and/or D operations does not pass through POTWs. EPA will review this judgment based on new data as it becomes available.) EPA therefore is soliciting data and comments in order to make a pass-through determination with respect to *acetonitrile*, *polyethylene glycol 600*, and COD. See Section XIV of this preamble, solicitation numbers 26 and 27.3. In addition, as noted above, EPA is not proposing pretreatment standards for five nonconventional organic pollutants (formaldehyde, N,N-dimethyl formamide, N,N dimethyl acetamide, ethylene glycol, and dimethyl sulfoxide) for any subcategory because, although EPA has determined that they pass through based on the BAT-level technology, EPA has concluded that the PSES technology (in-plant steam stripping) is an inappropriate basis for pretreatment

standards because these pollutants are not strippable. Moreover, EPA currently has insufficient data to select a treatment technology that would be an appropriate basis for such standards. EPA is considering package biological treatment of selected wastestreams for this purpose and solicits comments and data on this and other possible technology bases for pretreatment standards. See Section XIV, solicitation numbers 27.1 and 27.2. EPA also solicits comment and data regarding other pollutants that may pass through or interfere with POTWs, e.g., sulfates and sulfides. See Section XIV, solicitation number 28.

b. Options Considered. EPA considered four technology options for PSES under two different regulatory co-proposal scenarios for facilities with subcategory A, B, C, and D operations. Under co-proposal (1), EPA would propose PSES for 12 highly strippable organic pollutants (plus cyanide at an in-plant location (1) for subcategory A and/or C facilities) and 33 less strippable pollutants (plus ammonia for subcategory A and/or facilities) at the point of discharge to the POTW sewer. In-plant location (1) is described in IX.E.3.d, above. Under co-proposal (2), EPA would propose PSES only for the 12 highly strippable organic pollutants, plus cyanide at an in-plant location (1) and ammonia at the point of discharge to the POTW sewer for subcategory A and/or C facilities. As discussed in subsection a, above, EPA would not propose any pretreatment standards for the 33 less strippable organic pollutants under co-proposal (2) because of issues raised concerning EPA's pass-through analysis for those pollutants.

Under co-proposals (1) and (2), EPA considered basing PSES on the following four technology options for facilities with subcategory A and/or C operations for those pollutants found to pass through:

Option (1) In-plant steam stripping plus in-plant cyanide destruction.

Standards based on this option would control up to eight priority and 38 nonconventional volatile organic pollutants plus cyanide (depending on the pass-through co-proposal considered). Twelve pollutants plus cyanide would be controlled at the in-plant location (1) and 34 pollutants (including ammonia) at the point of discharge to the POTW sewer.

Option (2) In-plant steam stripping/distillation plus in-plant cyanide destruction.

Standards based on this option would control up to eight priority and 38 nonconventional volatile organic pollutants plus cyanide (depending on

the pass-through co-proposal considered). Distillation affords significantly greater removal of volatile organic pollutants that are difficult to strip, such as methanol. Under this option, 22 volatile organic pollutants plus cyanide would be controlled at the in plant location (1) and 24 pollutants (including ammonia) would be controlled at the point of discharge to the POTW sewer.

Option (3) In-plant steam stripping/distillation plus in-plant cyanide destruction plus advanced biological treatment. The addition of advanced biological treatment would achieve additional volatiles removal beyond that achieved by the technology described in Option 2 as well as significant reductions in discharge levels of COD. Advanced biological treatment would also reduce discharge levels of nonstrippable organic pollutants that are biodegradable.

Option (4) In-plant steam stripping/distillation plus in-plant cyanide destruction plus advanced biological treatment plus granular activated carbon (GAC) treatment. The addition of granular activated carbon treatment to the technology described in Option 3 would further reduce COD discharge levels.

EPA considered the same four technology options for PSES for facilities with subcategory B and/or D operations, excluding in-plant cyanide destruction (cyanide and ammonia are not regulated pollutants at subcategory B and/or D facilities). EPA has selected Option 1 for PSES under both co-proposals for indirect discharging facilities with subcategory A and/or C operations. The Agency has evaluated the costs of this option based on co-proposal (1) and found that there would be no closures among affected facilities (for which costs were estimated by EPA) as a result of these costs. Therefore EPA determined the costs of Option 1 to be economically achievable based on co-proposal (1). EPA also found the other options to be economically achievable. EPA selected Option 1 because it determined that this option represents the best available technology among all economically achievable options, insofar as it achieves pollutant reductions necessary to prevent pass-through of volatile organic pollutants, allows for recovery and recycling of volatile organic pollutants, and reduces non-water quality environmental impacts caused by air emissions of pollutants from wastewater. See Section XII.B of this preamble for a discussion of the Administrator's waste minimization and combustion strategy. Although Options 2, 3, and 4 would