

may lead to a different conclusion regarding the need for and feasibility of controlling volatile organic pollutants. See Section XIV, solicitation number 7.

*d. Point of regulation.* EPA considered three different points of compliance monitoring for facilities with subcategory A and/or C operations in establishing the proposed BAT effluent limitations for control of strippable and nonstrippable organic pollutants, and cyanide and ammonia. These points are located: (1) In-plant prior to dilution by non-process wastewater, commingling with other process wastewater streams not containing the regulated pollutants at treatable levels, and any conveyance, equalization, or other treatment units that are open to the atmosphere; (2) in-plant after commingling with other regulated process wastewater streams but prior to open-air primary treatment; and (3) at the final effluent point or end-of-pipe.

EPA is proposing BAT limitations for 45 volatile and semivolatile pollutants for facilities with subcategory B and/or D operations based on advanced biological treatment at the end of the pipe because currently available data does not support basing such limitations on in-plant steam stripping or steam stripping with distillation technologies. For facilities with subcategory A and/or C operations, EPA is proposing to set BAT limitations based on advanced biological treatment at the end of the pipe for eight semivolatile organic pollutants and COD because these pollutants are not strippable. For these facilities, EPA also proposes to enforce limits on cyanide inside the discharger's facility at in-plant location (1). EPA is proposing BAT limitations for 37 volatile and semivolatile pollutants plus ammonia for facilities with subcategory A and/or C operations based on in-plant steam stripping followed by advanced biological treatment at the end of the pipe.

In the usual case, compliance monitoring for NPDES permits occurs at the end of the pipe. See 40 CFR 122.45(a). However, the NPDES regulations also authorize permitting authorities to impose in-plant monitoring requirements on a case-by-case basis. 40 CFR 122.45(h). Those regulations provides that when permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, limitations or standards may be imposed on internal wastestreams before mixing with other wastestreams or cooling waters. *Id.* Under that regulation, the permit writer must describe in the fact sheet the exceptional circumstances that make such limits necessary. Section

122.45(h)(2) lists examples of exceptional circumstances that could justify such in-plant monitoring requirements. EPA also proposes to provide in the regulations that the BAT limitations set forth in the tables for subcategories A and C do not apply for any pollutant for which the permit writer finds it necessary to specify in-plant monitoring requirements under 40 CFR 122.44(i) and 122.45(h). EPA proposes that limitations for those pollutants would be established on a best professional judgment basis pursuant to 40 CFR 125.3. Permit writers in such cases should use as guidance the standards proposed as PSES for the particular pollutants as set forth at §§ 439.16(a)(1) and 439.36(a)(1) of the proposed regulation, because the proposed standards for those pollutants reflect in-plant monitoring based or the steam-stripping component of the BAT technology.

In the event that EPA decides to specify an in-plant monitoring location for the 12 highly strippable volatile organic pollutants, EPA would also propose to establish different BAT limitations corresponding to that location. EPA would likely use as a model the proposed pretreatment standards for existing sources in these subcategories for the reasons set forth above.

In developing this proposal, EPA considered establishing in-plant monitoring locations for all 45 volatile organic pollutants for facilities with subcategory A and/or C operations. EPA had several reasons for considering that approach. First, EPA was concerned that limits imposed at the end of the pipe for these pollutants could be impractical or infeasible to enforce. The limitations being proposed for the 45 volatile organic pollutants are based on BAT model technology steam stripping followed by advanced biological treatment. Many of these proposed limitations are only marginally above the levels at which these pollutants can be detected in the wastestreams. Dilution of these regulated wastestreams with other streams not containing the regulated pollutants, followed by incidental air stripping in primary and secondary treatment units, would in most cases cause the pollutants to be present at or below detection by current analytical methods. Thus, EPA was concerned that neither the discharger nor the permitting authority could practicably or feasibly determine, at the end of the pipe, whether the limits in fact were being met. Second, EPA was also concerned that monitoring for some pollutants at the point of discharge would be impractical and infeasible as

measures of the performance of the BAT control technologies, because EPA would have no way of knowing whether reductions in wastewater discharges are being achieved by application of the control technology or by air emissions in wastewater conveyance and treatment facilities. Companies are not required to install EPA's model BAT technology and can choose how they wish to achieve the limitations in these regulations. (EPA uses such information to review existing effluent limitations and to determine, consistent with sections 304(b) and 304(m) of the Clean Water Act, whether revisions are necessary.) Third, in-plant monitoring requirements could promote pollution prevention opportunities for recycle and reuse of volatile organic pollutants, including nonhalogenated volatile organic compounds (e.g., methanol), derived from application of in-plant technologies, like steam stripping. These compounds are considered "clean fuels." See Section XII.B for a discussion of "clean fuels." Reuse of these compounds as fuel could also help reduce a discharger's energy needs, a factor EPA must consider under section 304(b) of the Clean Water Act.

In considering whether to establish in-plant limitations for the 45 volatile organic pollutants, EPA also weighed the likelihood that wastewater pollutants will be transferred to the air in the course of primary or secondary treatment. Based on its analyses using the WATER7 model and questionnaire response data, EPA believes that wastewater from subcategory A and/or C facilities can indeed produce significant air emissions. EPA also believes that the steam stripping component of the proposed BAT technology will significantly reduce the likelihood of these emissions, because it achieves a removal efficiency of 99% for most of these pollutants. EPA further emphasizes that air stripping is not part of the proposed BAT technology.

Although EPA concluded that it has the legal authority to establish in-plant monitoring requirements, EPA has determined as a matter of policy that proposing such requirements today to account for these emissions would be premature because of the impending rulemaking for this industry under the Clean Air Act. As discussed in greater detail in Section X below, EPA expects to propose MACT standards for the pharmaceutical industry on the basis of the same steam stripper design employed in this water rulemaking. EPA also expects in the Clean Air Act rulemaking to regulate all volatile organic hazardous air pollutants (HAPs), including many of the 45 volatile