

be able to demonstrate that it complies with the rule requirements, assuming proper operation and management. Such facilities would be considered to achieve zero discharge. As discussed above, an upset defense could also apply when unforeseen and uncontrollable conditions result in a discharge.

The production area BMPs established today for Large swine, poultry, and veal CAFOs are necessary to ensure proper operation and maintenance of the production area and provide effective control of discharges of manure, litter, and other process wastewaters to surface water. There are numerous reports of operations discharging pollutants from the production area during dry weather, discharges from CAFOs that failed to maintain the required storage capacity, and instances of leakage and catastrophic failure of lagoons and other manure storage structures. CAFOs should actively operate and maintain the manure storage structure, including solids removal or dewatering when appropriate, to retain the capacity to accommodate continued generation of process wastewater. Information in the record for this rule indicates that many of the discharges could have been avoided if CAFOs had practiced the BMPs in this rule frequently enough to detect and correct discrepancies before they led to discharges.

EPA is not including ground water controls and monitoring requirements, or surface water monitoring requirements for Subpart D facilities for the same reasons described in Section IV.C.2.c for beef and dairy operations. EPA also rejected basing the effluent guidelines for swine operations on anaerobic digesters for the same reasons described above for dairies, and as discussed in the preamble for the proposed rule.

*e. Voluntary alternative performance standards to encourage innovative technologies.* EPA's long-term environmental vision for CAFOs includes continuing research and progress toward environmental improvement. The Agency believes that certain individual CAFOs will voluntarily develop and install new technologies and management practices equal to or better than those required by baseline technology-based effluent guidelines (BPT, BCT, and BAT) and standards (NSPS) promulgated in today's rule. Furthermore, EPA recognizes that some CAFOs, as well as land grant universities, State agencies, equipment vendors, and agricultural organizations, are working to develop new technologies that achieve

reductions in nutrient and pathogen losses to surface water, ammonia and other air emissions, and ground water contamination. The development of new technologies offers the potential to match or surpass the pollutant reduction that would be achieved by compliance with the baseline production area effluent guidelines and standards (discussed above in Section IV.C.2.c for Large CAFOs subject to Part 412, Subpart C, and Section IV.C.2.d for Large CAFOs subject to Part 412, Subpart D). The term "baseline effluent guidelines" as used here is defined below in the following section of this preamble.

In addition to the production area effluent guidelines promulgated by today's rule (the "baseline effluent guidelines"), EPA is establishing provisions for the development of alternative performance standards for discharges from the production area of Large CAFOs. The effluent guidelines promulgated today also establish BMPs that apply to the production area and land application areas at Large CAFOs. These BMP requirements are applicable to all Large CAFOs (both existing and new sources), regardless of whether their NPDES permit limitations are based on the baseline effluent guidelines or the alternative performance standards.

In establishing the ELG provisions for alternative performance standards, this rule creates a framework that enables new and existing Large CAFOs in Subpart C and existing Large CAFOs in Subpart D to develop and implement new technologies and management practices that perform as well as or better than the baseline effluent guidelines at reducing pollutant discharges to surface waters from the production area. For new Large CAFOs in Subpart D, the rule allows for alternative permit limitations based upon site-specific innovative technologies that achieve environmental performance across all media which is equal or superior to the baseline standards. An added benefit of providing for alternative performance standards is the potential for new or alternative technologies and practices to help address the multimedia environmental issues confronting CAFOs. A key tenet of these programs is that CAFOs will now have the option to either accept NPDES permit limitations based on the baseline effluent guidelines or voluntarily request the permitting authority to establish an alternative BPT/BCT/BAT/NSPS performance standard as the basis for their technology-based NPDES permit limits (e.g., inclusion of effluent

limitations in their NPDES permits that are different from those based on the baseline effluent guidelines).

EPA received suggestions from a number of stakeholders on the merits of creating a framework for alternative performance standards. Several stakeholders believe that the effluent guidelines established by the 1974 ELG regulation, as well as the baseline effluent guidelines promulgated in today's rule, discourage the use of innovative treatment and pollution prevention technologies because they are based on containment rather than treating the wastes to particular targets of effluent quality. A number of commenters expressed support for alternative wastewater treatment technologies that are equivalent to or better than baseline effluent guidelines, and they specifically requested that EPA establish provisions in the rule to allow CAFOs to discharge treated process wastewater generated from the production area of the CAFO.

Commenters also suggested that EPA's regulatory framework should provide incentives encouraging CAFOs to use technologies that would protect all environmental media, including air, ground water, and surface water. Commenters suggested that adding flexibility in the rule to allow for the discharge of treated process wastewater could lead to better approaches for addressing multimedia environmental concerns. On a related note, a number of stakeholders commented that EPA should include controls for pathogens or antibiotics, as well as atmospheric emissions of ammonia, methane, and hydrogen sulfide.

In view of these comments and recognizing the potential environmental gains presented by the ongoing research and development of new treatment technologies for CAFO wastes, today's rule establishes provisions providing for the development of alternative performance standards for discharges from Large CAFOs. As noted above, CAFOs retain the option to either accept NPDES permit limitations based on the baseline effluent guidelines or voluntarily request the permitting authority to establish an alternative performance standard as the basis for their technology-based NPDES permit limits. The specific requirements imposed by the alternative performance standard would be established by the NPDES permitting authority based on the technical analysis and other information submitted by the CAFO, as required under the alternative performance standards provisions included in Part 412. CAFOs would not be required to enter the alternative