

economic impacts unique to that subcategory. In this rule, EPA has addressed such considerations by establishing two new subcategories, codified at Subpart C (beef, dairy, and heifers) and Subpart D (swine, poultry, and veal) of 40 CFR 412. *See* Section IV.C.2.a of the preamble for a discussion of these subcategories.

The requirements established in this rule for BPT effluent guidelines reflect consideration of the total cost of applying these technologies (including BMPs) in relation to the effluent reduction benefits that will be achieved. The ELGs promulgated today are expected to cost Large CAFOs \$283 million per year (pre-tax). The ELGs will reduce discharges of sediment by 2.1 billion pounds, nutrients by 155 million pounds, and metals by one million pounds annually. This results in an overall ratio of \$0.12 per pound of pollutant removed (using reductions of sediment, nutrients, and metals). Excluding sediment reductions, the rule achieves an overall ratio of \$1.75 per pound of pollutant removed (nutrients and metals).

The technologies upon which BPT is based are ones that are readily applicable to all CAFOs and will provide effective control of discharges of manure, litter, and other process wastewaters to surface water. These requirements are widely demonstrated as achievable and represent the level of control achieved by the majority of Large CAFOs. The containment requirements included in this rule have been applicable to Large CAFOs since they were promulgated in the 1974 ELGs, and most existing lagoons and other containment structures are built to these standards. Furthermore, USDA and ASAE cite the 25-year, 24-hour rainfall event as part of the standard to which containment structures should be constructed.

As described in Section IV.C.2.b of this preamble, the land application requirements included in this rule represent practices that will ensure that CAFOs apply manure, litter, and other process wastewaters at a rate and in a manner consistent with the appropriate agricultural utilization of nutrients. Limits on the rate at which manure can be applied and certain other constraints on application practices, such as setbacks and vegetated buffers, are widely demonstrated as achievable and have been imposed by a number of States and through NPDES permits.

(2) BCT. In evaluating the possible BCT standards in this rulemaking, EPA first considered whether there are any candidate technologies (*i.e.*, technology options) that are technologically feasible

and achieve greater reductions in conventional pollutants than are achieved by the BPT requirements promulgated today. (Conventional pollutants are defined as TSS, BOD, pH, fecal coliform, and oil and grease.) EPA's analyses of pollutant reductions that can be achieved by the candidate options (including the BPT, BAT, and NSPS options) has focused largely on the control of nutrients, sediments, metals, and pathogens, but to the extent possible have also assessed the effectiveness of the control options at reducing discharges of conventional pollutants. Although animal wastes contain BOD because of the organic material present in these wastes, the data available for estimating reductions of BOD from application of the candidate technologies are limited. Therefore, EPA based its estimates of conventional pollutant reductions on TSS, using estimated reductions in sediment discharges as a surrogate for TSS. Following this approach, EPA identified no BCT technology option that achieves greater TSS removals than the BPT requirements promulgated today, and EPA does not believe the candidate BCT options would substantially reduce discharges of BOD. EPA therefore concluded that there are no candidate BCT technologies for establishing limits on conventional pollutants that are more stringent than BPT, and is establishing BCT requirements in this rule equal to BPT. If EPA had identified technology options appropriate for a national rule that achieve greater reductions of conventional pollutants than are achieved by BPT, then EPA would have performed the two-part BCT cost test. (*See* 51 FR 24974 for a description of the methodology EPA employs when setting BCT standards.)

(3) BAT. In general, BAT represents the best available economically achievable performance of direct discharging facilities in the industrial subcategory or category. The Clean Water Act requires EPA to consider a number of different factors when developing ELGs that represent the BAT level of control for discharges of toxic and nonconventional pollutants by a particular industry category. These factors include the cost of achieving effluent reductions, the age of equipment and facilities involved, the processes employed, engineering aspects of the control technology, potential process changes, non-water quality environmental impacts (including energy requirements), and other factors as the Administrator deems appropriate. EPA's consideration of

these factors and how they affected this rulemaking is presented in the *Technical Development Document*.

An additional statutory factor considered in setting the BAT requirements is economic achievability. Generally, the achievability is determined on the basis of the total cost to the industrial subcategory and the overall effect of the rule on the industry's financial health. The BAT requirements promulgated today are economically achievable and represent the best available technology for Large CAFOs. As was discussed above for BPT, EPA estimates the cost for Large CAFOs to comply with the ELGs at \$283 million per year (pre-tax, \$2001). The ELGs will reduce discharges of sediment by 2.1 billion pounds, nutrients by 155 million pounds, and metals by one million pounds annually. (These costs and pollutant reductions are not additional costs beyond that of BPT. Because the BPT and BAT requirements promulgated today are identical, the costs and pollutant reductions for each level of control are presented incremental to the baseline of current practices and current regulatory requirements.)

The technologies upon which BAT is based are ones that are readily applicable to all CAFOs and will provide effective control of discharges of manure, litter, and other process wastewaters to surface water. The containment requirements, in conjunction with the production area BMPs included in this rule, are widely demonstrated as achievable and represent the level of control demonstrated to be achievable by well-performing Large CAFOs. The containment requirements included in this rule have been applicable to Large CAFOs since they were promulgated in the 1974 ELGs, and most existing lagoons and other containment structures are built to these standards. Furthermore, USDA and ASAE cite the 25-year, 24-hour rainfall event as part of the standard to which storage structures should be constructed.

As described in Section IV.C.2.b of this preamble, the land application requirements included in this rule are consistent with appropriate agricultural utilization of nutrients and will ensure that CAFOs apply manure, litter, and other process wastewaters at a rate and in a manner necessary to meet the requirements of the crops grown and not exceed the ability of the soil and crop to absorb nutrients. Limits on the rate at which manure can be applied and certain other constraints on application practices, such as setbacks and vegetated buffers, are widely