

substantially from those practices used at operations in Subpart D. Large swine, poultry, and veal calf operations predominantly maintain their animals in confinement housing as opposed to the open outdoor lots used at the vast majority of large beef feedlots, heifer operations, and dairies (while dairy cattle at many dairies spend much of their time indoors either in the milking parlor or in barns, most dairy cattle also have access to outdoor areas similar in many respects to the outdoor areas at beef feedlots). The open outdoor lots present at beef feedlots expose large areas to precipitation, necessitating the ability to collect storm water runoff in retention ponds. Heifer operations (other than those that are pasture-based) are configured and operated in a manner very similar to beef feedlots, and thus have very similar waste management practices. Dairies also frequently keep animals in open areas for some period of time, whether it is simply the pathway from the barn to the milk house or an open exercise lot. Storm water runoff from these open areas must be collected in addition to any storm water that contacts food or silage. As is the case for beef feedlots and heifer operations, the runoff volume from the exposed areas is a function of the size of the area where the cattle are maintained, and the amount of precipitation.

Because swine, poultry, and veal calves are predominantly maintained in confinement housing, the waste management practices at Large CAFOs covered by Subpart D differ substantially from the practices at Subpart C operations. These confinement operations are able to manage manure largely in a relatively dry form, or contain liquid wastes in storage structures such as lagoons, tanks, or underhouse pits. Broiler and turkey operations generate a dry manure which can be kept covered either under a shed or with tarps. Laying hen operations with dry manure handling practices usually store manure below the birds' cages and inside the confinement building. Nearly all swine, veal, and poultry operations confine their animals under roof, avoiding the use of open animal confinement areas that generate large volumes of contaminated storm water runoff. These Subpart D operations differ most notably from Subpart C operations in that they, in most cases, do not have to manage the large volumes of storm water runoff that must be collected at Subpart C operations. While Subpart D operations that manage wastes in uncovered lagoons must be able to

accommodate precipitation, they are largely able to divert uncontaminated storm water away from the lagoons and minimize the volume of wastes they must manage.

The statutory factors considered as a basis for subcategorization are discussed in Section IV.C.2.f of the preamble and in the *Technical Development Document*.

*b. What are the land application effluent guidelines for all Large CAFOs covered by Subparts C and D (beef, dairy, heifer, swine, poultry, and veal)?*

The ELGs described in this section apply to all Large CAFOs covered by Part 412, Subpart C (beef, dairy, and heifer) and Subpart D (swine, poultry, and veal). These BPT, BCT, BAT, and NSPS requirements are being established for the reasons discussed below in this section, and consistent with the factors for consideration under the Clean Water Act, as discussed in Sections II.A.2 and IV.C.2.f of this preamble.

Today's final rule establishes requirements to ensure the proper application of manure, litter, and other process wastes and wastewaters to land under the control of Large CAFOs. The ELGs established by this rule require Large CAFOs to prepare and implement a site-specific nutrient management plan (described in detail in Section IV.C.3), for manure, litter, and other process wastewater applied to land under their ownership or operational control. In addition to preparing the site-specific nutrient management plan, and the recordkeeping and reporting requirements described in Section IV.D, Large CAFOs need to conduct the following land application BMPs and can use other BMPs that assist in complying with the ELGs:

- Land-apply manure, litter, and other process wastewaters in accordance with a nutrient management plan that establishes application rates for each field based on the technical standards for nutrient management established by the Director.
- Collect and analyze manure, litter, and other process wastewaters annually for nutrient content, including nitrogen and phosphorus.
- At least once every five years, collect and analyze representative soil samples for phosphorus content from all fields where manure, litter, and other process wastewaters are applied.
- Maintain a setback area within 100 feet of any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters where manure, litter, and other process wastewaters are not applied. As a

compliance alternative, the CAFO may elect to establish a 35-foot vegetated buffer where manure, litter, or other process wastewaters are not applied. For further flexibility the CAFO may demonstrate to the permitting authority that a setback or vegetated buffer is unnecessary or may be reduced.

- Periodically conduct leak inspections of equipment used for land application of manure, litter, or process wastewater.

- Maintain on-site the records specified in 40 CFR 412.37(c). These records must be made available to the permitting authority and the Regional Administrator, or his or her designee, for review upon request. Records must be maintained for 5 years from the date they are created.

Today's rule requires Large CAFOs to determine and implement site-specific nutrient application rates that are consistent with the technical standards for nutrient management established by the permitting authority. Permitting authorities have discretion in setting technical standards that minimize phosphorus and nitrogen transport to surface water. Technical standards for nutrient management should appropriately balance the nutrient needs of crops and potential adverse water quality impacts in establishing methods and criteria for determining appropriate application rates. The permitting authority may use the USDA Natural Resource Conservation Service (NRCS) Nutrient Management Conservation Practice Standard, Code 590, or other appropriate technical standards, as guidance for development of the applicable technical standard. The current NRCS Nutrient Management technical standard describes three field-specific risk assessment methods to determine whether the land application rate is to be based on nitrogen or phosphorus, or whether land application is to be avoided. These three methods are: (1) Phosphorus Index; (2) Soil Phosphorus Threshold Level; and (3) Soil Test Phosphorus Level. The permitting authority has the discretion to determine which of these three methods, or other State-approved alternative method, is to be used.

The field-specific risk assessment provides CAFOs with the information needed to determine if manure nutrients should be applied at a nitrogen or phosphorus application rate, or if no manure application is appropriate. In today's rule, EPA clarifies that CAFOs may apply conservation practices, best management practices, or management activities to their land application areas, which in aggregate may reduce field vulnerability to off-site phosphorus