

U.S. Environmental Protection Agency Validation of Environmental Concerns and Development and Assessment of National Regulations

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The U.S. Environmental Protection Agency (EPA) recognizes that animal feeding operations (AFOs) pose a variety of threats to human health and the environment. Pollutants from livestock operations include: nutrients, organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, dust, and ammonia. In response to increasing awareness of the pollution threats and changes in the livestock industry, EPA is developing a series of water-quality regulations and guidance that will impact AFOs directly and indirectly. The focus of these actions is on the control of nutrient leaching and runoff.

Concentrated Animal Feeding Operations (CAFOs) are defined as point sources under the Clean Water Act, and therefore, are required to obtain a permit to discharge to waters of the United States. The existing CAFO regulations, which are over 20 years old, are being revised. Three new CAFO regulations will be proposed in December 2000—effluent guidelines for pork and poultry, effluent guidelines for beef and dairy, and permitting regulations. Effluent guidelines establish the best available technology economically achievable for CAFOs over a certain size threshold. The permitting regulations address smaller CAFOs and describe additional requirements such as monitoring and reporting.

The U.S. Department of Agriculture (USDA) and EPA National Unified Animal Feeding Operation Strategy, released in March 1999, established a national goal for all 450,000 AFO owners and operators to develop and implement a Comprehensive Nutrient Management Plan (CNMP). A CNMP includes: feed management, manure handling and storage, land application of manure, site management (e.g., tillage, riparian buffers), record keeping, and other utilization options where an inadequate land base is available to properly apply the manure. CNMPs would be required for the approximately 15,000 to 20,000 CAFOs covered by Clean Water Act regulations. The other AFOs would implement CNMPs voluntarily with cost-share and technical assistance under a variety of Federal and State programs.

EPA's Draft Guidance Manual and Example National Pollutant Discharge Elimination System (NPDES) Permit for CAFOs, released in August 1999, interprets existing CAFO regulations. It clearly states the requirement of CAFOs to obtain a permit, which includes a CNMP. Corporations that exert substantial operational control over CAFOs also will be permitted.

The proposed Total Maximum Daily Load (TMDL) regulations and the development of nutrient water-quality criteria will impact AFOs indirectly. The nutrient criteria will be used by the States to establish quantitative standards for nitrogen and phosphorus in all water bodies. Currently, most nutrient standards are qualitative.

States are required to develop TMDLs for water bodies that do not meet the standards for nutrients or other pollutants. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water-quality standards. Through the TMDL process, pollutant loads will be allocated to all sources. In some impaired watersheds, AFOs may be impacted since improved management practices will be necessary to restore water quality.

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