

Animal Science

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An Overview of EPA's New CAFO Regulations

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Introduction

On December 16, 2002, the U.S. Environmental Protection Agency (EPA) released the final rule for confined animal feeding operations (CAFO). The new CAFO rule is a regulation that reinterprets the existing Clean Water Act and previous EPA policy. The rule establishes new effluent limitation guidelines and federal permit requirements for confined livestock and poultry operations. The new CAFO rule will bring added responsibilities, added costs, added public oversight and perhaps added legal risks for livestock and poultry farmers.

The final version of the CAFO rule is much different than the proposed CAFO rule which appeared for public comment two years ago. While there still will be financial hardship for some livestock and poultry farmers, fewer operations will be affected by the new CAFO rule than originally projected.

EPA expects the CAFO rule will affect approximately 15,500 livestock and poultry operations. EPA estimates an annual reduction of 56 million pounds of phosphorous, 110 million pounds of nitrogen, 2.1 billion pounds of sediment and 911,000 pounds of metals being released from CAFOs. A significant reduction in pathogen release is also expected.

The CAFO rule is estimated to cost \$335 million annually which is substantially lower than the \$940 million annual cost in the proposed rule. To help farmers with some of the added costs of meeting the regulations, Congress increased funding for land and water conservation programs in the 2002 Farm Bill by \$20.9 billion. Additional funds to assist farmers were authorized in the Environmental Quality Initiative Program (EQIP) and 60 percent of these funds must go to livestock and poultry operations.

The final rule allows states some flexibility in tailoring regulations to meet individual state needs. While the large CAFOs will be required to be permitted, states will be able to use voluntary and incentive programs to help medium and small operations from becoming subject to the CAFO rule.

Criteria for AFOs and CAFOs

Two criteria are used to determine if a livestock or poultry farm is an animal feeding operation (AFO). These criteria are (1) animals must be confined for at least 45 days in a 12-

month period, and (2) there is not grass or other vegetation in the confinement area during the normal growing season.

CAFOs are AFOs that must obtain a National Pollution Discharge Eliminations Systems (NPDES) permit. Presented in Table 1 are animal number thresholds for livestock and poultry operations. The operations are divided into large, medium and small categories. Operations with animal numbers in the large category are automatically designated a CAFO.

Operations in the medium size category will be a CAFO if (1) a man-made ditch, pipe, flushing system or other similar man-made device carries manure or process wastewater from the operation to surface water or (2) pollutants are discharged directly into surface waters which originate outside of and pass over, access, or through the facility and the animals come into contact with the water.

A small size operation can be designated a CAFO if it is inspected by a representative of the state or federal permitting authority and it is determined the operation is a significant contributor of pollutants to waters of the state.

Table 1. Animal Number Thresholds for Livestock and Poultry Farms

Sector	Large	Medium ¹	Small ²
Cattle or cow/calf pair	1,000 or more	300 – 999	Less than 300
Mature dairy cattle	700 or more	200 – 699	Less than 200
Veal calves	1,000 or more	300 – 999	Less than 300
Swine (weighing over 55 lbs.)	2,500 or more	750 – 2,499	Less than 750
Swine (weighing less than 55 lbs.)	10,000 or more	3,000 – 9,999	Less than 3,000
Horses	500 or more	150 – 499	Less than 150
Sheep or lambs	10,000 or more	3,000 – 9,999	Less than 3,000
Turkeys	55,000 or more	16,500 – 54,999	Less than 16,500
Laying hens or broilers (liquid manure handling system)	30,000 or more	9,000 – 29,999	Less than 37,500
Chickens other than laying hens (other than a liquid manure handling system)	125,000 or more	37,500-124,999	Less than 25,000
Laying hens (other than a liquid manure handling system)	82,000 or more	25,000 – 81,999	Less than 25,000
Ducks (other than a liquid manure handling system)	30,000 or more	10,000 – 29,999	Less than 10,000
Ducks (liquid manure handling system)	5,000 or more	1,500 – 4,999	Less than 1,500

¹Must also meet one of two “method of discharge” criteria to be defined as a CAFO or may be designated.

²Never a CAFO by regulatory definition, but may be designated as a CAFO on a case-by-case basis.

CAFO Permit Requirements

The NPDES permit issued to a CAFO must include requirements to (1) develop and implement a nutrient management plan, (2) keep all applicable CAFO records for five years, (3) provide the recipient of manure, litter or process wastewater going off-farm with the most current nutrient analysis and (4) submit an annual report to the state permitting agency.

The nutrient management plan must address the form, source, amount, timing and method of application of nutrients on each field to achieve realistic production goals while minimizing nitrogen and phosphorous movement to surface waters. Manure must be analyzed at least once annually for nutrient value and soil analyzed at least once every five years. Records must be kept to document compliance.

Manure, litter and process wastewater may not be applied closer than 100 feet to any down gradient surface water, open tile intake structures, sink holes, agricultural well heads or other conduits to surface water. The CAFO may substitute the 100 feet setback with a 35 feet wide vegetated buffer where application of manure, litter or process wastewater are prohibited.

All existing and new beef and dairy operations will continue to use the 25-year, 24-hour storm design criteria for manure storage. However, new swine, poultry and veal calf operations will be required to design manure storage systems based on a 100-year, 24-hour storm event.

Summary

The final EPA CAFO rule appears to be compatible with Tennessee's existing CAFO regulations. While some differences do exist, for example, animal numbers for an operation to be designated a large CAFO, EPA's final rule will strengthen Tennessee's CAFO regulations. States will have some flexibility in developing programs to assist medium and small animal feeding operations. Tennessee has one year to make necessary changes in its CAFO regulations. Changes to Tennessee's regulations must go through a public hearing process and the regulations most likely will not be finalized until late Fall, 2003.

The final rule states that true pasture and rangeland operations are not considered animal feeding operations. In a pasture based operation, animals may freely wander in and out of a particular area for food or shelter and this is not considered confinement.

CAFOs that most likely will have difficulty in meeting the new regulations are (1) operations with limited access to sufficient land for manure application, (2) operations with limited manure storage capacity and (3) operations in watersheds where phosphorous problems have been identified.

Several state and federal agencies including the Tennessee Department of Agriculture, Tennessee Department of Environment and Conservation, University of Tennessee Agricultural Extension Service, Natural Resources Conservation Service, Farm Services Agency and the U.S. Environmental Protection Agency are working to develop programs to assist Tennessee livestock and poultry farmers in meeting the new CAFO rule.