

Rationale Sheet
State of Tennessee
General Permit for the
Concentrated Animal Feeding Operation

Outline -

- I. Background
 - II. Description of discharges
 - III. Present permit conditions
 - IV. Proposed terms and conditions
 - V. Notification requirements and authorization to discharge
 - VI. Permit issuance procedures
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I. Background

Activities considered in this rationale are concentrated animal feeding operations (CAFOs) with the potential to discharge to the waters of the state.

Tennessee's Water Quality Control Act requires that operations which have the potential or do discharge to the waters of the State of Tennessee be permitted by the Department of Environment and Conservation.

Because the activities and nature of almost all CAFOs are similar, with respect to impact on the water environment, and the needed controls to protect waters of the state are similar, it is the opinion of the Division of Water Pollution Control that this category of sources would be controlled more appropriately under a general permit than under individual permits.

This rationale sheet describes and gives the basis for permit conditions to be applied statewide CAFO operations.

Applicability of this general permit is for new and existing CAFOs as defined in Chapter 1200-4-5-.14 of the Rules of Tennessee Department of Environment and Conservation (TDEC). Medium CAFOs are those which confine a certain number of animals (Table I) and meet one of the following criteria: (1) pollutants are discharged through a discrete, discernable conveyance to waters of the state or (2) pollutants are discharged to waters of the state which come into direct contact with confined animals or (3) the feeding operation is located on a water body that has been identified by TDEC as being impaired for nutrients or pathogens.

II. Description of activities

a. Definitions of AFO and CAFO

An "Animal Feeding Operation" (AFO) is a facility that (1) stables, confines and feeds or maintains animals (other than aquatic animals) for a total of 45 days or more in any 12-month period and (2) does not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season over any portion of the facility. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of

animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes. (TN state rules 1200-4-5-.02, def. (3))

TABLE I

Animal Type	Class I (Large CAFO)	Class II (Medium CAFO)
Dairy Cows	700 +	200 – 699
Cattle	1,000+	300 – 999
Swine	2,500+ (\geq 55 lbs) 10,000+ (\leq 55 lbs)	750 – 2,499 (\geq 55 lbs) 3,000 – 9,999 (\leq 55 lbs)
Chickens (liquid)	30,000+	9,000 – 29,999
Chickens (dry)	125,000+ (non-layers) 82,000+ (layers)	37,500 – 124,999 (non-layers) 25,000 – 81,999 (layers)

Other AFOs may be designated as CAFOs at the discretion of the director. Factors to be considered in this determination include the AFO's size, the amount of waste reaching waters of the state, the location of the AFO and the means of waste conveyance to waters of the state.

b. CAFOs in Tennessee

Currently permitted

The division currently has permitted 143 CAFOs. Ten of these are large CAFOs, which are permitted by individual NPDES permits while 133 are medium CAFOs and are permitted under a general NPDES permit. The types of CAFOs are poultry (boilers, laying hens), swine, and dairy. Most of these are poultry CAFOs.

Anticipated new CAFOs

Based on the definition of CAFO above, we expect the number of regulated operations to stay about the same.

c. Water quality issues

The primary issue of water quality concern at a CAFO is the volume of waste generated and the potential that waste or wastewater be released to nearby streams. The pollutants of concern are nutrients – phosphorus and nitrogen – and pathogens.

Also, waste and wastewater is applied to cropland for its nutrient value. Waste and wastewater is applied to a farmer's own cropland, or on cropland adjacent to the farmer's own, and/or CAFO waste is transferred to other cropland.

If CAFOs are not managed properly, waste is released to streams and can cause violations of water quality standards.

Please note that this permit, as proposed, prohibits discharges of animal waste or wastewater to waters of the state, unless such discharge results from a catastrophic or chronic storm event

III. Present permit conditions

The division previously issued a General Permit for CAFO operation. That permit expires on April 30, 2004. The present permit was based on the state's CAFO strategy issued by the governor on April 1, 1998. That permit provided and or required the following:

- Prohibited discharge except as a result of ten -year, 24-hour rainfall event
- Required a Nutrient Management Plan, approved by Tennessee Department of Agriculture
- Set forth requirement for liquid waste handling systems
- Required recordkeeping of waste and nutrient management
- Required appropriate disposal of dead animals
- Includes provisions for closure of liquid waste handling system
- Allowed inspections by federal and state authorities

IV. Proposed permit conditions

The main elements of the proposed permit are the following:

Nutrient management plan – so that all the quantity of waste or wastewater applied to cropland is completely incorporated into the soil and vegetation; so that there is no excess of waste/nutrients to runoff into nearby streams.

Buffer zone – the permit prohibits application of waste on cropland within 100 feet of down-gradient surface waters; this buffer zone may be only 35 feet if the buffer is non-crop, vegetated buffer; and in special circumstances a buffer zone is not required; these buffer zones protect the stream from runoff of waste and nutrients to the stream.

3rd party agreement – in order to protect the waters of the state, the CAFO must insure that any 3rd party receiving more than 100 of manure, litter and process wastewater per year signs a statement agreeing to abide by best management practices consistent with the CAFO's nutrient management plan.

Recordkeeping

Recordkeeping requirements found at 1200-4-5-.14 (15) (d) are included in the permit.

Annual Report

The annual report requirement found at 1200-4-5-.14 (15) (g) is included in the permit.

V. Notification requirements and authorization to discharge

(a) Permit coverage and limitations of coverage

This permit is applicable to all medium size Concentrated Animal feeding operations that meet the above definition.

(b) Authorization to discharge

Any discharge of wastewater from a CAFO is prohibited, unless such discharge results from a catastrophic or chronic storm event.

(c) Notice of Intent (NOI) requirements

The Notice of Intent (NOI) per 1200-4-5.05(2) of the rule along with a closure plan for waste storage/treatment structure and a comprehensive nutrient management plan according to 1200-4-5-.14(5), both which meet or exceed Natural Resource Conservation Service (NRSC) technical standards, shall be submitted to Tennessee Department of Agriculture at the following address:

CAFO Notice of Intent
Tennessee Department of Agriculture
Ellington Agricultural Center
Nashville, TN 37204

VI. Permit issuance procedures

(a) Administration

This general permit is drafted in accordance with and under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and approval from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4.

(b) Consideration of comments and permit issuance decisions

The Division of Water Pollution Control proposes to issue this permit with the described effluent limitations, monitoring and reporting requirements and standard conditions. These conditions are tentative and open to comment. Interested persons are invited to submit comments for consideration, by letter or at the scheduled public hearings. Hearings will be held pursuant to Rule 1200-4-1-.05 on the following dates and locations:

- Monday, April 12, 2004 at 7:00 p.m. (CDT) Auditorium in the TDOT Region 4 Office, 300 Benchmark Place at the Interstate 40 Exit 76, Jackson, TN 38301-9693;
- Tuesday, April 13, 2004 at 2:00 p.m. (CDT) Ellington Agricultural Center Ed Jones Auditorium Hogan Rd;
- Tuesday, April 13, 2004 at 7:00 p.m. (CDT) Shelbyville Court House One Public Square, Suite 200, Shelbyville, TN;
- Thursday, April 15, 2004, at 1:00 p.m. (EDT) in the Large Conference Room on the 1st Floor of TDEC's Environmental Assistance Center, 540 McCallie Avenue, Chattanooga, TN 37402-2013;
- Thursday, April 15, 2004 at 7:00 p.m. (EDT) Cleveland State University Coleman Community Services RM C-106 3535 Adkisson Dr. Cleveland, TN;
- Monday, April 19, 2004 at 7:00 p.m. (EDT) Claude Austin 4 H Center Class Room 6 214 4H Lane, Greenville, TN;
- Tuesday, April 20, 2004 at 7:00 p.m. (EDT) in the Goins Auditorium, Pellissippi State Technical Community College, 10915 Hardin Valley Rd., Knoxville, TN 37933-0990 and
- Tuesday, April 20, 2004 at 7:00 p.m. (CDT) Tennessee Technological University Pennebaker Hall, Room 128 1100 North Dixie Avenue Cookeville, TN

Comments should be submitted to the following address or by e-mail to Jim.McAdoo@state.tn.us:

Division of Water Pollution Control
ATTN: Jim McAdoo
6th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1534