

# Animal Agriculture

## Concentrated Animal Feeding Operations— General



# Ag Center

Helping Agriculture Comply with  
Environmental Requirements

F O C U S O N

## CAFO Permit Requirements— General

*This fact sheet will help you understand why your animal feeding operation may need a National Pollutant Discharge Elimination System (NPDES) permit and what parts of your operation might be subject to these special requirements to protect water quality.*

### Feeding operations may require permits

If you have an animal feeding operation that may discharge manure into surface water or groundwater, you may need to obtain an NPDES permit and meet certain requirements for the protection of water quality. The federal laws discussed in this fact sheet define the types of operations that are regulated in this way. Many states also have their own regulations, which may be more stringent.

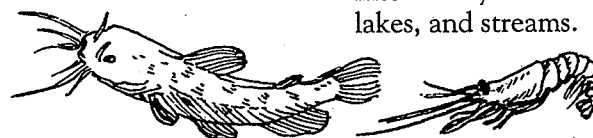
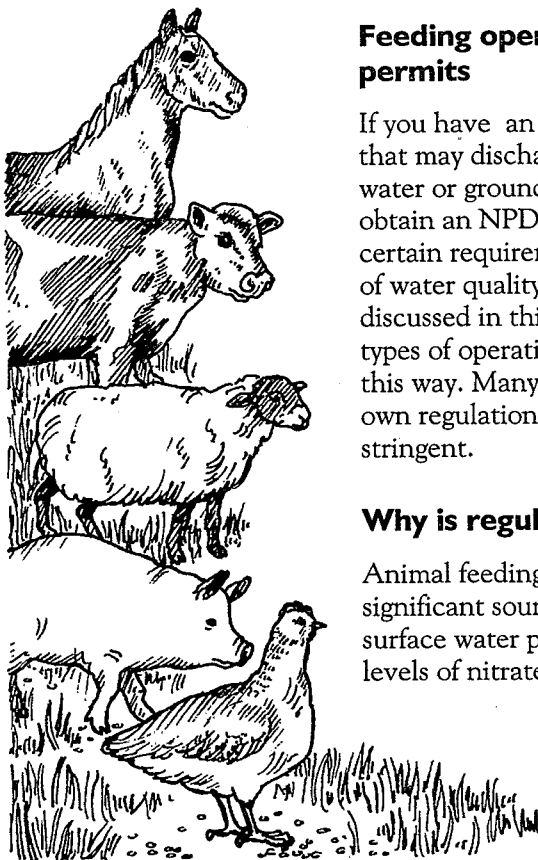
### Why is regulation necessary?

Animal feeding operations (AFOs) are a significant source of groundwater and surface water pollution because of high levels of nitrates and phosphorus,

harmful bacteria, and salt found in manure. These pollutants pose a health risk to humans and animals, increase the cost of safe drinking water, and may mean that the contaminated surface water cannot support recreation, provide a healthy aquatic environment, or meet Clean Water Act requirements.

### How do animal feeding operations contaminate water sources?

Manure from AFOs can pollute sources of drinking water by moving into surface water after being applied to land, or by leaching into groundwater. During periods of heavy precipitation, manure management systems (lagoons, ponds, etc.) may overflow and spill wastewater into nearby waterways such as rivers, lakes, and streams.





Federal government rules are based, in part, on whether a facility meets the definitions of Animal Feeding Operations (AFOs) and Concentrated Animal Feeding Operations (CAFOs).

### What is an AFO?

Generally, an operation is defined as an AFO under federal regulations if

- animals have been, are, or will be stabled or confined, and fed or maintained, for a total of 45 days or more in any 12-month period, and
- crops, vegetation forage growth, or post-harvest residues are not sustained during the normal growing season over any part of the facility.

### What is a CAFO?

A CAFO is a specific type of AFO that has the potential to contaminate nearby waterways. An AFO is a CAFO under federal regulations if

- it confines more than 1,000 animal units (see page 3)

OR

- it confines between 301 and 1,000 animal units and discharges pollutants into *waters of the United States* (either directly into on-site water, or indirectly by channeling wastes through a ditch, flushing system, or other device)

OR

- EPA has designated it as a CAFO upon determining that the operation, regardless of its size, is a significant source of pollution. This determination, which considers a number of factors (such as slope,

*The term waters of the United States, also called navigable waters in this regulation, means any surface waterways in or surrounding the United States, including not only rivers and lakes, but also ditches, streams, wetlands, or drainages that empty into or are adjacent to any tributary of a body of water. Groundwater that has a direct connection to surface water is also included in the definition.*

vegetation, and the proximity of the operation to the waters), is based on an on-site inspection by the agency that issues the permits.

*Exception: A facility will not be considered a CAFO if it discharges pollutants only in the event of a 25-year, 24-hour storm—the number of inches of rainfall in a 24-hour period that is expected to occur only once every 25 years, a figure that is published for every location in the United States by the National Weather Service.*

Animal	Equivalent to 1,000 Animal Units	Equivalent to 301 Animal Units
Slaughter or Feeder Cattle	1,000	301
Mature Dairy Cattle	700	200
Swine (each weighing over 25 kg or about 55 pounds)	2,500	750
Turkeys	55,000	16,500
Laying Hens or Broilers (with unlimited, continuous-flow watering systems)	100,000	30,000
Laying Hens or Broilers (with liquid manure handling systems)	30,000	9,000

For more about CAFOs, including how to calculate animal units, call the Ag Center to request EPA's "Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations" (Ag Center document number 11009).

### What are animal units?

EPA uses the animal unit (AU) to measure the size of AFOs. A 1,000-pound steer is the standard; the equivalent number of any other type of livestock is considered one animal unit. The table above shows the numbers of some other animals that would constitute 1,000 AUs and 301 AUs.

### Does my operation need a permit?

A CAFO is not allowed to discharge pollutants to waters of the United States unless it has obtained a federal permit for the discharge. The permit, which EPA issues under the authority of the Clean Water Act, is called a National Pollutant Discharge Elimination System (NPDES) permit. Violators are subject to fines and penalties.

Operations that require a permit include not only those that meet the standard definition of a CAFO, but also any smaller operations whose potential for point-source pollution has caused them to be designated as CAFOs on the basis of an on-site inspection.

In most states, NPDES permits are issued by the state government rather than by EPA; in other states, a facility may be subject to both a federal NPDES permit and a state-issued permit.

### What areas of a CAFO are regulated?

NPDES permit restrictions apply, for example, to areas such as animal watering systems; washing, cleaning, or flushing pens; and manure stacks or pits. Areas where dust is produced are also included, because the dust may contain particles of manure, litter, bedding, and feedstuffs.

### What does an NPDES permit require?

EPA's NPDES permits for CAFOs may include requirements for

- eliminating the discharge of animal wastes to U.S. waters
- providing a retention structure for animal wastes (including specifications on construction, maintenance, and operation)

- periodic reporting of water quality monitoring results
- proper land application of wastes
- best-management practices
- pollution prevention plans.

### When is a discharge from a CAFO not a violation of the Clean Water Act?

A large operation (more than 1,000 animal units) that has been designated as a CAFO will not be in violation of the Clean Water Act for an overflow discharge *resulting from catastrophic or chronic rainfall events*, as long as the operator has

- obtained an NPDES permit, and
- properly designed, constructed, and operated a containment system capable of handling all the facility's process-generated waste waters plus the runoff from a 25-year/24-hour storm.

The rainfall events included in this exception are

- catastrophic events—including tornados, hurricanes, and 25-year/24-hour storms
- chronic rainfall—a series of wet weather conditions that prevent waste removal from properly maintained waste retention structures.

Permits for smaller CAFOs (1,000 animal units or less) generally also provide these protections to permit holders.

*Rainfall that could cause overflow leading to water contamination cannot always be predicted. The key to compliance is the proper design, continual maintenance, and correct operation of the manure management system.*

### For more information

This fact sheet is only a general description of EPA's rules and regulations on CAFOs. For more specific information about how EPA or state requirements may apply to your facility, consult the applicable regulations directly, or contact your EPA regional office or state government.

You can get more facts about compliance by calling the Ag Center's toll-free number. Materials can be sent to you by fax or mail, or you can talk to an Ag Center representative. For a list of all publications available from the Ag Center, request document number 10001, "Ag Center Publications."

The Ag Center welcomes comments on this document and its other services.

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