

Excerpts from *USEPA's CAFO Questions and Answers supplement to the NPDES Permit Writers' Guidance Manual and Example Permit for CAFOs* (December 31, 2003)

**Note: Sections D, G, and L through O have been adapted from the CAFO Questions and Answers supplement, and tailored for distribution and discussion at the Regional Water Board's workshop (January 31, 2008).*

The full document can be located at the following web address - http://www.epa.gov/npdes/pubs/cafo_questionsandanswers.pdf

Contents:

D. Discharges from On-Site Land Application of CAFO Manure	1
G. Discharging Without a Permit.....	2
L. Land Application Practices.....	3
M. Nutrient Management Plans	6
N. Manure Transferred to Other Persons.....	7
O. Monitoring and Record-Keeping Requirements	8

D. Discharges from On-Site Land Application of CAFO Manure

Question D.1 Does the phrase “discharge of manure, litter, or process wastewater from land application areas” refer to the discharge of the manure itself or to the discharge of nutrients from manure?

Answer: Discharges are not limited to manure or manure nutrients. Discharges of manure, litter, or process wastewater include all pollutants in the manure, litter, and process wastewater.

Question D.2 When is runoff of manure, litter, or process waste water from land application areas allowed?

Answer: In general, runoff of manure, litter, or process waste water from a land application area is allowed only when the CAFO has an NPDES permit and has applied the manure, litter, or wastewater in accordance with the site specific nutrient management plan that is required by the permit. EPA expects that no dry weather discharges will be allowed under NPDES permits for CAFOs.

Question D.3 Is land “under the control of a CAFO owner or operator” where the CAFO owner or operator has an access agreement for land application of manure, litter, or process wastewater?

Answer: Where a CAFO owner or operator has an agreement (of any type) with another person that allows the CAFO owner or operator to apply manure, litter, or process wastewater to the other person’s land, the CAFO owner or operator is considered to have direct control of that land application area.

Question D.4 May the permit include additional special conditions (such as timing restrictions) or water quality-based effluent limits for land application areas in impaired watersheds under a Total Maximum Daily Load (TMDL), or other watersheds on a site-specific basis?

Answer: The NPDES permit may include additional special conditions, including special conditions for the land application area. However, where the permit includes technology-based requirements for land application consistent with the land application and nutrient management plan requirements of the 2003 regulatory revisions, more stringent water quality-based effluent limitations are possible only for the production area. EPA encourages States to address water quality protection issues in their technical standards for nutrient management for determining appropriate land application practices.

G. Discharging Without a Permit

Question G.2 Does the "no discharge" standard apply regardless of rainfall event size? In other words, does "no discharge" mean that a facility is required to have a permit, no matter how large the storm?

Answer: Yes. There is no design standard above which a facility could legally discharge without a permit.

Question G.3 If an operator chooses not to apply for a permit because the CAFO does not "discharge or propose to discharge" and then has a discharge in a large storm, is the operator in violation of the Clean Water Act?

Answer: Yes. An unpermitted CAFO may not have any discharge, even if the discharge is due to a large storm. CAFOs that discharge without a permit are in violation of the Clean Water Act.

L. Land Application Practices

Question L.1 If a CAFO operator applies CAFO manure to land that he owns but that is not adjacent to the CAFO, is the land application subject to regulation in the CAFO's NPDES permit?

Answer: Yes. The "land application area" is land under the control of the CAFO owner or operator, whether it is adjacent to the CAFO or not, to which manure, litter, or process wastewater from the production area is or may be applied, including cropland [40 CFR sections 122.23(b)(3) and 412.2(e)].

Question L.2 The CAFO NPDES regulations [40 CFR 122.42(e)(4)(vi)] require that a CAFO's annual report include a "summary of all manure, litter and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume." Does this include discharges resulting from applications to cropland?

Answer: No. This particular requirement applies to production area discharges, and not to discharges from land application areas. (See 40 CFR 412.2(h) for the regulatory definition of *production area*.) Other requirements for the annual report relate to whether manure, litter, and process wastewater are properly land applied.

Question L.3 What is meant by "consideration of multi-year phosphorus application" [40 CFR 412.4(c)(2)(ii)]?

Answer: Multi-year phosphorus application is a practice that may be appropriate for certain fields that do not have a high potential for runoff to surface waters. The practice allows manure application in a single year at rates in excess of the phosphorus requirements of the crops. In subsequent years, no phosphorus would be applied until the amount applied in the single year has been removed through plant uptake and harvest. The rate at which manure nutrients are applied should not exceed the annual nitrogen recommendation for the year of application, nor could such applications be made on sites with a high potential for phosphorus runoff.

Question L.4 Are CAFOs allowed to use multi-year nitrogen application (nitrogen banking), or does it apply only to phosphorus?

Answer: Application rates for manure, litter, and process wastewater must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the technical standards for nutrient management established by the Director. Flexibility to comply with these technical standards includes consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water. EPA did not include an allowance for multi-year nitrogen application in the rule. The rate at which manure nutrients are applied should not exceed the annual nitrogen recommendation for the year of application. Application rates consistent with multi-year nitrogen application would not minimize transport from the field to surface waters and, in some cases, would not support realistic yield goals.

Question L.5 How does the buildup of phosphorus in soil relate to permit conditions?

Answer: The technical standards established by the Director include a field specific assessment of the potential for phosphorus transport. The technical standards might require different sets of management practices depending on the amount of soil phosphorus and the potential for transport to surface waters. For example, on a field with high soil phosphorus levels and a high risk of transport to surface waters, the State technical standards could prohibit the application of manure.

Question L.6 Who performs the “field-specific assessment of the potential for nitrogen and phosphorus transport” [40 CFR 412.4(c)], and where is the assessment process explained?

Answer: Field-specific assessments are a normal part of developing a nutrient management plan. The actual procedures are expected to be established in the technical standards set by the Director. Such assessments are the responsibility of the CAFO operator, but EPA encourages CAFO operators to use certified specialists to develop the nutrient management plan.

Question L.7 What activities are allowed in the 100-foot setback and the 35-foot vegetated buffer?

Answer: For CAFOs that land apply manure, litter, or process wastewater, a setback is an area where manure, litter, or other process wastewaters may not be applied but crops may continue to be grown. In this case, manure, litter, or other process wastewaters may not be applied closer than 100 feet to any down-gradient surface waters, open (uncovered) tile line intake structures, sinkholes, agricultural wellheads, or other conduits to surface waters. No other activities are explicitly prohibited. CAFO owners or operators may opt to implement a 35-foot-wide vegetated buffer in place of the 100-foot setback. A vegetated buffer is a permanent strip of dense perennial vegetation. No crops may be grown in the 35-footwide vegetated buffer. The vegetated buffer slows runoff, increases water infiltration, absorbs nutrients, and traps pollutants bound to sediment. Manure, litter, or other process wastewaters may not be applied to the 35-footwide vegetated buffer.

Question L.8 If crops may not be grown in the 35-foot vegetated buffer, what upkeep activities may be used to maintain the buffer’s efficiency? If harvesting is not allowed, how will the nutrients that accumulate in these buffers be removed? Does this mean that hay cannot be harvested from vegetated buffers? May alfalfa be used as a buffer?

Answer: The CAFO owner or operator may choose to implement a 35-foot vegetated buffer in lieu of the 100-foot setback. Harvesting of crops from the vegetated buffer is not allowed; by definition, a vegetated buffer is not established for the purpose of producing crops. A vegetated buffer is established to slow water runoff, enhance water infiltration, and minimize the risk of any potential nutrients or pollutants leaving the field and reaching surface waters. In general, the vegetated buffer is composed of dense, native, perennial species of vegetation. Natural Resources Conservation Service (NRCS) standards such as Conservation Practice 393 recommend appropriate species for cover. This standard generally includes native species. If the applicable standard includes hay or alfalfa, the CAFO can choose such species in the vegetated buffer. Proper operation and

maintenance (O&M) is a standard condition of all NPDES permits [40 CFR 122.41(e)]. This includes proper O&M of the buffer. NRCS standards include O&M recommendations for buffers, such as periodic sediment removal, nutrient removal, and trimming of the vegetation. Vegetated buffers are generally eligible for funding under USDA's Conservation Reserve Program continuous sign-up. CAFOs can enroll in this program at any time and can receive incentive payments for the installation of the buffer and annual rental payments for the duration of the 10- to 15-year contract.

Question L.9 Must a CAFO operator maintain a setback from capped tile drain inlets?

Answer: No. The 100-foot setback requirement applies only to open tile drain inlets.

M. Nutrient Management Plans

Question M.1 What nutrients are covered by the rule?

Answer: The land application requirements in the rule focus on nitrogen and phosphorus, but certain management practices (such as a vegetated buffer) also control other nutrients and pollutants in manure, litter, and process wastewater that is land applied. In addition, the production area standards limit discharges of all pollutants from the production area.

Question M.3 How often does the nutrient management plan need to be revised?

Answer: Through the NPDES permit application process, a nutrient management plan will have to be reviewed and updated by the CAFO owner or operator in order to be submitted with the NOI, every 5 years. EPA recognizes, however, that the nutrient management plan will be a dynamic document that most likely will require updates more frequently than every 5 years. A site-specific nutrient management plan that reflects the current CAFO operation must be maintained on-site by the CAFO owner or operator. The most obvious factor that would necessitate an update of the nutrient management plan is a substantial change in the number of animals at the CAFO. A substantial increase in animal numbers (for example, an increase of more than 20 percent) would significantly increase the volume of manure and total nitrogen and phosphorus produced on the CAFO. As a result, the CAFO would need to reevaluate animal waste storage facilities to ensure adequate capacity and may need to reexamine the land application sites and rates. Another example of a reason for updating the nutrient management plan is a change in a CAFO's cropping program, which could significantly alter land application of animal waste. Changes in crop rotation or crop acreage, for instance, could significantly alter land application rates for fields receiving animal waste.

Question M.5 40 CFR 122.42(e)(4)(vii) requires that a CAFO's annual report include a statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner. Where are the qualifications and credentials of a "certified nutrient management planner" defined? How are producers expected to use certified nutrient management planners before States have had a chance to develop certification programs?

Answer: EPA does not require producers to use certified planners. Although not required, EPA encourages CAFOs to make use of certified specialists with the expertise to develop high-quality nutrient management plans. EPA recognizes that some States already have certification programs in place for nutrient management planning, and expects that the USDA and EPA guidance for AFOs and CAFOs will provide additional impetus for new and improved State certification programs. Interested parties should consult with USDA, State agricultural departments, and their NPDES permitting authority regarding the availability of certified specialists.

N. Manure Transferred to Other Persons

Question N.1 If a CAFO operator transfers manure to a non-CAFO farmer, what is required?

Answer: If the CAFO is a Large CAFO, the CAFO owner or operator will be required to keep records of the date, approximate amount, and the recipient's name and address for each manure transfer. The owner or operator also must give the recipient a copy of the most current manure test results [40 CFR 122.42(e)(3)].

Question N.2 Is the record-keeping requirement for manure transfers triggered by a certain amount of manure?

Answer: No. It applies to any transfer of manure, even if small.

Question N.3 Would "pickup load" be sufficient as a record of the amount?

Answer: The rule requires an estimate of the amount of manure, litter, and process wastewater transferred to other persons each year to be reported in tons or gallons as part of the annual report. The amount recorded for individual transfers should be sufficiently detailed to determine the total amount each year; for example, perhaps to indicate how much manure is in a pickup load.

Question N.4 How should CAFO operators determine the nutrient content of manure, litter, and process wastewater in order to provide that information to recipients?

Answer: Under the ELG, NPDES permits for Large CAFOs must require manure, litter, and process wastewater to be analyzed at least annually. The permit must also require the CAFO owner or operator to provide recipients with a copy of the most current test results [40 CFR 122.42(e)(3)]. These results should be representative of the actual nutrient content of the manure, litter, and process wastewater.

Question N.5 Does a CAFO's NPDES permit include any requirements for third-party recipients of manure, litter, or process wastewater to ensure proper nutrient management? What if a third-party recipient stockpiles litter or manure in such a way as to result in runoff of nutrients to waters of the United States?

Answer: The CAFO regulations do not establish conditions for third-party recipients in a CAFO's NPDES permit. However, States may have other requirements that address manure handling by third parties. In addition, where litter or manure is stockpiled and exposed to rainfall, the permitting authority may designate such discharges as storm water discharges subject to permitting in accordance with 40 CFR 122.26(a)(9).

O. Monitoring and Record-Keeping Requirements

Question O.2 Must soil samples also be analyzed for nitrogen, or does the requirement apply only to phosphorus?

Answer: Soil must be analyzed for phosphorus a minimum of once every 5 years [40 CFR 412.4(c)(3)]. Manure must be analyzed for nitrogen and phosphorus a minimum of once annually.

Question O.3 Do the regulations allow for average manure analysis since the amount of nutrients depends on manure handling and storage practices?

Answer: Manure must be analyzed a minimum of once annually for nitrogen and phosphorus. The results are used in determining application rates for manure, litter, and process wastewater that minimize nitrogen and phosphorus movement to surface waters. Such application rates should be based on accurate data from representative sampling of manure. Using the average value might not reflect the actual nutrient content of the manure, litter, or process wastewater being land applied. Therefore, the sample should be a representative sample for each type of manure, litter, or process wastewater. For example, cake and full house clean-out will have different nutrient values and should be sampled separately. The permitting authority has the flexibility to require additional manure analyses because of the dependency of nutrients on manure handling and storage practices.

Question O.4 How should operators of Large CAFOs keep inspection records?

Answer: EPA does not require a specific format or inspection data sheet for the required inspections; however, EPA does expect the records to be legible and to provide the necessary information to ensure that an adequate inspection was conducted. Such information should include the date of inspection, the inspection site identification (for example, lagoon #1, runoff diversion from stockpile area #1, water lines in barn #2), the inspection results for each site, and any comments on the condition of the inspection site (for example, main valve to water lines in barn #2 leaking, replaced valve the next day to stop leak). The CAFO owner or operator should maintain these records in a daily log or notebook to ensure that they are complete and organized. [Note for Workshop purposes: The Regional Board will provide reporting forms to operators.]

Question O.5 Are there any exemptions from record-keeping requirements?

Answer: No.