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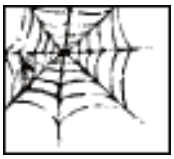

EPA promulgated regulations for Concentrated Animal Feeding Operations (CAFOs) in February 12, 2003 that expanded the number of operations covered by the CAFO regulations and included requirements to address the land application of manure from CAFOs. The rule became effective on April 14, 2003. NPDES-authorized states were required to modify their programs by February 2005 and develop state technical standards for nutrient management. On February 28, 2005, in response to litigation brought by various organizations, the Second Circuit court issued its decision in *Waterkeeper Alliance et al. v. EPA*, 399 F.3d 486 (2d Cir. 2005). EPA has updated the CAFO rule to reflect the changes requested by the Court. Visit www.epa.gov/npdes/caforule to view the 2008 CAFO Final Rule and supporting documents.

CAFO Questions and Answers
supplement to the
NPDES Permit Writers' Guidance Manual
and Example Permit for CAFOs

December 31, 2003

Notice

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A. Definition of AFO

Question A.1 How much vegetation can a feedlot contain and still meet the animal feeding operation (AFO) definition?

Answer: Part of the definition of an AFO distinguishes feedlots from pastures. Pastures are not subject to the National Pollutant Discharge Elimination System (NPDES) program. This part of the definition narrows the scope of the regulations to facilities where animals are confined and where natural forage or planted vegetation does not occur during the normal growing season. Confinement areas may have incidental vegetation, such as growth along the edges, while animals are present or during months when animals are kept elsewhere. The U.S. Environmental Protection Agency (EPA) interprets the regulations to mean that if a facility maintains animals in areas such as dirt lots where there is no vegetation or only incidental vegetation, the facility meets the second part of the AFO definition.

Question A.2 The preamble to the concentrated animal feeding operation (CAFO) rules says that for winter feedlots the no vegetation criterion is meant to be evaluated in the winter, when animals are confined. Doesn't this contradict the AFO definition, which refers to the "normal growing season"? Winter is not the normal growing season.

Answer: The purpose of the third topic was to clarify a very specific situation in which animals are clearly confined in a traditional feedlot (earthen pens) for more than 45 days but not year-round. The point was to differentiate between a pasture operation that would not be regulated and a feedlot that might have vegetation that emerges in the spring (when animals are removed). Winter feedlots as described in the preamble are deemed to be AFOs and may be defined or designated as CAFOs.

Question A.3 Are holding pens at auction houses, auction barns, stockyards, sale barns, livestock marketing areas, horse show arenas, and racetracks considered AFOs?

Answer: Each of these operations may be an AFO if it meets the definition in 40 CFR 122.23, which includes the requirement that animals be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period. For example, a livestock market facility where cattle are maintained for 4 days per month, or 48 days in each 12-month period, meets the definition of an AFO. EPA interprets *maintained* to mean that the animals are confined in the same area where waste is generated and/or concentrated. *Maintained* can also mean that the animals in the confined area are watered, cleaned,

groomed, or medicated. Accordingly, the NPDES permitting authority may regulate animal operations such as dairy farms, stockyards, and auction houses where animals may not be fed, but are temporarily confined.

Question A.4 Are feedlots at meat packaging plants or slaughterhouses considered AFOs?

Answer: No. Meat packing plants (including slaughterhouses) are not considered AFOs. They fall under the applicability of the Meat Products Point Source Category at 40 CFR Part 432. All discharges from these operations would be covered in an NPDES permit issued under that point source category. At this time, EPA is proposing revisions to the meat products rule that specifically clarify that animal holding areas at meat and poultry slaughterhouses, processing plants, and packaging plants, are included under the Meat Products rule.

Question A.5 Is an operation considered an AFO if it confines a large number of animals only under unusual circumstances (for example, an entire herd brought into confinement for more than 45 days because the herd needs medical treatment)?

Answer: Yes. If the operation confines animals for 45 days or more in a 12-month period, regardless of the reason for the confinement, and does not sustain vegetation in the confinement area, then it is considered an AFO.

Question A.6 Does this rule regulate pasturing operations? How can a State limit the number of animals on a pasture?

Answer: Pasture and range operations do not, as such, meet the definition of an AFO. However, a pasture or grazing-based operation may also have confinement areas (e.g., feedlots, barns, pens) that qualify the confinement area as an AFO. Generally, in pasture and range situations, the animals are at a sufficiently low density in terms of number of animals per acre that the growth of grasses and other plants is not inhibited. In situations where a pasture-based operation results in water quality problems, States may have the ability under State regulations or voluntary programs to take the appropriate actions to protect water quality.

Question A.7 Does the rule require that dairy cattle grazing in pastures be prevented from entering waters of the United States?

Answer: No. Even though pastures are not covered by the rule, to allow pastured animals to enter waters of the United States is not protective of water quality. EPA encourages operations that do not already do so to voluntarily provide an alternative water source to keep animals out of waters of the United States, thereby reducing potential water quality impacts.

B. Definition of a CAFO

Question B.1 When determining whether an operation exceeds the threshold for a Large CAFO, does one look at the number of animals actually maintained for 45 days or the operation's capacity to maintain the threshold number of animals for 45 days?

Answer: To determine whether the numeric threshold for a Large CAFO (or Medium CAFO) is exceeded, the number of animals actually maintained for 45 days or more in a 12-month period is considered, not the capacity of the operation.

Question B.2 Please answer the following:

a) How are mature, non-lactating dairy cows counted?
b) Are heifers counted as cows?
c) How would an AFO with 500 milking dairy cows, 150 non-lactating cows, 650 heifers, 25 calves, and 75 cow/calf pairs be classified?

Answer: In the CAFO rules, regulated bovine include (1) mature dairy cows, whether milked or dry; (2) veal calves; and (3) all other cattle. A *heifer* is not a mature dairy cow. *Cattle* includes but is not limited to heifers, steers, bulls, and cow/calf pairs. Specific answers to the questions above are as follows:

a) Mature, non-lactating dairy cows are counted the same as lactating dairy cows.
b) Heifers are counted the same as cattle other than mature dairy cows.
c) If either the number of mature dairy cows is 700 or more, OR the number of veal calves is 1,000 or more, OR the number of cattle other than mature dairy cows is 1,000 or more, the AFO is a Large CAFO.

   In the example, there are fewer than 700 mature dairy cows (500 milking cows plus 150 non-lactating cows), and there are fewer than 1,000 cattle other than mature dairy cows (650 heifers plus 25 calves plus 75 cow/calf pairs), so the operation is not a Large CAFO.

Question B.3 A dairy operation with a 700-cow milking herd has its herd divided among multiple pastures. The cows are brought into the milking parlor in groups of 250 (maximum capacity) at various times throughout each day. They are fed while being milked. Clearly all 700 cows are confined each day; however, they are never all confined at the same time. Is this operation an AFO? Is it a CAFO?

Answer: If an animal is confined for any portion of a day in an area with no vegetation (such as a milking parlor), it is counted as if it were confined for a full day. Since animals are confined at this operation for more than 45 days in a 12-month period, it is an AFO. Since all 700 cows are confined each day, this operation meets the definition of a Large CAFO.

Question B.4 A 1,100-head cow/calf operation evenly splits its calving between fall and spring. The animals are generally pastured with the exception of two 60-day periods when the cow/calf pairs are confined for weaning. Because the calving is split, only 550 calves are confined in any one weaning session. Is this operation an AFO? Is it a CAFO?

Answer: This operation meets the definition of an AFO because animals are confined for 45 days or more in a 12-month period. Because the operation never confines 1,000 cow/calf pairs on any one day, it does not meet the definition of a Large CAFO, regardless of the number of days the animals are confined. To be a Large CAFO, the operation would have to confine 1,000 or more cow/calf pairs for 45 days or more in a 12-month period. The operation could, however, meet the definition of a Medium CAFO if it meets one of the two discharge criteria for the Medium CAFO category, or it could be designated as a CAFO by the permitting authority if it is a significant contributor of pollutants to waters of the United States.

Question B.5 How are operations with more than one animal type regulated? Does an operation count just a single species with the greatest number of animals, instead of counting all animals no matter what type? How do you count mixed animals within species (for example, operations that raise hogs from 15 to 65 pounds)?

Answer: The CAFO rules categorize animals by animal type. Thus, there may be, as in the case of hogs, more than one animal type for a given species (for example, swine weighing 55 pounds or more and swine weighing less than 55 pounds). When a single animal type meets the threshold for being defined a CAFO, all the confined animals on that operation are regulated. In the example given, the operation may be defined as a Large or Medium CAFO

if the facility confines either the requisite number of swine weighing 55 pounds or more OR the requisite number of swine weighing less than 55 pounds.

Question B.6 If a CAFO with chickens land applies litter to a pasture that is used by cows, are the cows regulated as part of the CAFO?

Answer: Once an operation is defined or designated as a CAFO, all confined animals at the facility are regulated under the NPDES regulations. If the cows are pastured and never confined, their manure is not regulated. Spreading manure on pasture does not bring the manure from the pasture-based animals under the CAFO regulations. However, under the regulations [40 CFR 122.42(e)(1)], the nutrients from the cattle manure added to the pasture must be taken into account in the nutrient management plan developed for the pasture.

Question B.7 If a poultry farm that has several chicken houses behind the farmer's home stores "crust out" litter in the storage shed 100 feet from the chicken house, and has a temporary stockpile in the field, what is considered the production area?

Answer: The term *production area* is defined at 40 CFR 122.23(b)(8) and 412.2. In this specific example, the storage shed and any other stockpiles of litter are part of the production area, even if physically separated from the chicken houses. Any feed or bedding storage areas would also be considered part of the production area.

Question B.8 Is an AFO with an existing storm water NPDES permit necessarily defined as a CAFO just because it already has an NPDES permit?

Answer: No. An operation is defined as a CAFO only when it meets the definition of a CAFO set forth in the regulations. [40 CFR 122.23(b).]

Question B.9 How are separate facilities distinguished in the new rules? For example, are two adjoining AFOs considered to be one facility or two? If two operations owned by the same person are separated by several miles of land not owned by this person, is the mere fact that the person spreads waste from both operations on the same ground enough for these facilities to be considered one operation?

Answer: Under the regulations, two AFOs under common ownership are considered one operation for permitting purposes if they adjoin each other or use a common area or system for waste disposal. In the first example, the two adjoining AFOs are considered to be a single operation if they are under

common ownership. In the second example, the two operations are also considered to be a single operation because they are under common ownership and use a common area for waste disposal.

Question B.10 How are operations with multiple farms regulated? For example, someone owns and operates one farm that has three chicken houses and also operates a leased farm 10 miles away with another three chicken houses. Even though the farmer manages more than 125,000 chickens in total at any one time, neither of the two farms houses more than 100,000 chickens. The two farms do not use a common manure handling system. Is this farmer operating a CAFO?

Answer: In the example, since the two farms do not adjoin each other and do not use a common area or system for waste disposal, the two operations would not be considered to be a single AFO for purposes of determining the number of animals. Therefore, as long as they do not use liquid manure handling systems, neither of the farms would meet the definition of a Large CAFO [40 CFR 122.23(b)].

Question B.11 If a single farm has six chicken houses with more than 125,000 birds and the houses are managed by two different people, is the farm considered a CAFO?

Answer: In this example, the chicken houses are part of a single operation and presumably use a common area or system for the disposal of wastes; therefore, the entire operation is a Large CAFO. The number of managers is not relevant.

Question B.12 Do the regulations cover brokers that buy and sell dry poultry manure?

Answer: The CAFO rule does not regulate brokers; however, some States do regulate them.

C. New Dischargers and Newly Defined Operations

Question C.1 What is a *newly defined* versus a *new discharger* facility?

Answer: The distinction between *newly defined* facilities and *new dischargers* is important only in determining when a CAFO owner or operator must apply for an NPDES permit. The actual requirements of the permit do not depend on whether the operation is a newly defined CAFO or a new discharger.

EPA does not have a regulatory definition for *newly defined* CAFOs; however, the regulations do refer to operations that are "defined as CAFOs as of April 14, 2003, who were not defined as CAFOs prior to that date." These facilities were not included in the definition of a CAFO in the regulations prior to April 2003, but now are defined as CAFOs under the new regulations. These include operations that are defined as CAFOs based upon the following animal types: chickens (those that use other than liquid manure handling systems, for example, broilers), swine weighing less than 55 pounds, and heifers. They also include operations that appropriately claimed the 25-year, 24-hour storm permit exemption under the previous regulations.

In general, a *new discharger* is an operation that became (or becomes) defined as a CAFO after April 14, 2003, but that is not a new source. An operation can be a new discharger either by changing conditions (typically increasing the number of animals confined)* at an existing AFO so that it meets the definition or by being newly constructed (only Medium CAFOs). There are three groups of new dischargers identified in 40 CFR 122.23(g)(3). These are as follows:

1) Operations constructed after April 14, 2003, that are not subject to the federal effluent limitations guidelines (ELGs). These include all newly constructed Medium CAFOs (except Medium dry lot duck CAFOs).
2) AFOs that undergo changes* in conditions after April 14, 2003, that cause them to meet the CAFO definition for an animal sector that IS NOT newly regulated. These include AFOs that confined chickens (those with a liquid manure handling system), turkeys, ducks, horses, sheep, dairy cows, beef cattle, swine (weighing 55 pounds or more), or veal calves.
3) AFOs that undergo changes* in conditions after April 14, 2003, that cause them to meet the CAFO definition for an animal sector that IS newly regulated. These include AFOs that confine chickens (those with other than a liquid manure handling system), heifers, or swine (weighing less than 55 pounds).

* Operations that expand to meet the definition of a Large CAFO might meet the new source criteria of 40 CFR 122.29(b), depending on the nature of the expansion. In those instances, expanding operations are considered to be new sources rather than new dischargers.

Question C.2 Does the 10-year protection period for new sources [40 CFR 122.29(d)] apply to new dischargers?

Answer: The 10-year protection period regarding applicability of the newly promulgated ELG does not apply to new dischargers. This protection period

applies to only those facilities subject to the New Source Performance Standards (NSPS) at some time during the 10 years preceding the promulgated rule revisions.

Question C.3 Which standards now apply to CAFOs that began operation before April 13, 2003, but did not need NPDES permits because of the 25-year, 24-hour storm permit exemption?

Answer: These facilities are newly defined as CAFOs. These facilities are subject to Best Available Technology Economically Achievable (BAT), and not to New Source Performance Standards (NSPS) (unless, of course, they make changes to the facility that meet the new source criteria of 40 CFR 122.29(b)).

Question C.4 When must newly defined CAFOs (such as dry litter poultry and immature swine operations) meet the ELG requirements?

Answer: All Large CAFOs, including newly defined Large CAFOs, must meet the production area effluent limitations in their NPDES permits immediately upon permit coverage. All Large CAFOs except new sources have until December 31, 2006, to meet the land application area requirements. New source CAFOs must meet the land application area requirements in their permits immediately upon permit coverage.

Question C.5 Were AFOs with cow/calf pairs considered to have "slaughter or feeder cattle" under the old rule or are they AFOs defined as CAFOs as of April 14, 2003, who were not defined as CAFOs prior to that date? Do all CAFOs with cow/calf pairs have until April 2006 to apply for permits or do some such CAFOs (i.e., those not eligible for the 25-year, 24-hour storm exemption under the old rule) need to apply for permits now?

Answer: If a cow/calf operation meets the definition of a Large or Medium CAFO under the revised regulations, that operation would have also met the CAFO definition under the previous regulations if it would have discharged in less than a 25-year, 24-hour storm. Such operations are considered to be existing CAFOs under the revised regulations and must seek NPDES permit coverage immediately if they are not already covered under an NPDES permit. However, a cow/calf operation that would otherwise have met the CAFO definition under the previous regulations, but qualified for the 25-year, 24-hour storm exemption is considered to be a newly defined CAFO under the revised regulations and must seek permit coverage by April 2006.

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 processwaste water from land application areas allowed?

Answer: In general, runoff of manure, litter, or processwaste 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.

E. Medium and Small CAFOs

Question E.1 In the definition of Medium CAFO, what is meant by "pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device"?

Answer: The term *man-made device* means a conveyance constructed by humans that transports wastes to waters of the United States. Man-made devices include, for example, pipes, ditches, and channels. If human action was involved in the creation of the conveyance, it is man-made even if natural materials were used to form it. A man-made channel or ditch that was not created specifically to carry animal wastes but nonetheless does so is considered a man-made device. For this criterion to be met, there must be an actual discharge of pollutants. Three types of conveyances are listed in the regulations: (1) a man-made ditch, (2) a flushing system, and (3) a similar man-made device.

Question E.2 To meet the Medium CAFO discharge criteria, must there be an actual discharge, or would a potential discharge meet the criteria? Does the presence of a man-made conveyance in the production area imply a discharge?

Answer: For an AFO to meet the *definition* of a Medium CAFO, there must be evidence of an actual discharge to waters of the United States. The owner or operator of such a CAFO must apply for and obtain an NPDES permit. Permitting authorities should work with all operations to eliminate man-made conveyances from the production area so that the operations will not become CAFOs. If there is a conveyance and there is adequate rainfall to cause runoff, there is likely to be a discharge of pollutants.

Question E.3 Are tile drains a man-made conveyance?

Answer: Tile drains are a man-made device when they convey a discharge from the production area. For purposes of defining an AFO as a Medium CAFO, tile drains located in the production area meet the definition of a man-made conveyance.

Question E.4 Can a medium operation be a CAFO even if it does not meet either of the two conditions for being defined as a CAFO?

Answer: Yes. A medium operation that does not meet one of the two discharge criteria and is therefore not *defined* as a CAFO may nevertheless be *designated* as a CAFO by the permitting authority. If the Director of the

permitting authority determines that the operation is a significant contributor of pollutants to waters of the United States, the Director may designate the operation as a Medium CAFO.

Question E.5 To designate a medium-sized AFO as a Medium CAFO, an inspection is required. Can the required inspection be one that was conducted before the new regulations went into effect, such as several years before?

Answer: The regulation does not establish a time limit for when an inspection must be conducted. Decisions to designate operations as CAFOs should be based on the most recent information available.

Question E.6 Must small AFOs meet one of the discharge criteria in order to be designated?

Answer: Yes. A small AFO must meet one of the two discharge criteria and be determined by the Director to be a significant contributor of pollutants to waters of the United States to be designated as a CAFO.

Question E.7 Can facilities be "undesignated"?

Answer: Once a facility has been designated as a CAFO, the facility owner or operator must apply for an NPDES permit. During the term of the NPDES permit, the operator may request that the permitting authority terminate the NPDES permit once the conditions at the operation that resulted in designation are corrected. However, a permit must be maintained until the permittee has demonstrated that there is no remaining potential for a discharge of manure, litter, or process wastewater that was generated while the operation was a CAFO, other than agricultural storm water from land application areas [40 CFR 122.23(h)(2)]. The termination of a permit is at the discretion of the permitting authority [40 CFR 122.64 and 124.5(d)].

Question E.8 If a medium-sized AFO has best management practices (BMPs) to prevent storm water from coming into contact with manure, will the owner or operator be required to apply for a permit as a CAFO?

Answer: No. If a medium-sized AFO diverts all storm water from the production area and the diverted water does not come into contact with animals or manure, litter, or process wastewater, runoff of the storm water will not result in the operation being defined as a CAFO.

Question E.9 Do Medium CAFOs have to comply with the ELGs?

Answer: No, with the exception of Medium dry lot duck CAFOs. However, Medium CAFOs must meet the requirements of their permits, as described in 40 CFR Part 122, including the development and implementation of a nutrient management plan and associated record-keeping. The technology-based effluent limitations in a permit for Medium CAFOs will be based on best professional judgment (BPJ). Typically, they will include measures to address the site-specific conditions that resulted in the operation's being defined as a CAFO in the first place. EPA anticipates that, for many Medium CAFOs, technical requirements based on BPJ will be similar to the requirements in the ELGs.

Question E.10 Some States issue individual permits only to large operations. Will these States be required to issue NPDES permits to medium-sized operations?

Answer: Any facility in the medium size category that meets the definition of a CAFO must seek coverage under an NPDES permit. Such facilities could be covered under either individual permits or a general permit, at the State's discretion. A State might be able to use non-NPDES programs to help medium-sized facilities eliminate the conditions that would otherwise cause them to be defined as CAFOs. Where a medium size facility makes changes at its operation to eliminate these conditions such that it is no longer defined as a CAFO, the facility then would not be required to seek coverage under an NPDES permit.

F. NPDES Permits

Question F.1 If an AFO has a lagoon to contain waste, would the operation automatically need an NPDES permit?

Answer: No. An AFO with a lagoon is not automatically defined as a CAFO. To be considered a CAFO and therefore need an NPDES permit, it must also either meet the Large CAFO threshold, meet the Medium CAFO threshold and one of the two discharge criteria for being defined as a CAFO, or be designated as a CAFO by the permitting authority.

Question F.2 Are CAFO operations that already have an NPDES storm water permit required to comply with those permit requirements or the requirements of an NPDES CAFO permit?

Answer: A CAFO with an NPDES storm water permit would still be required to apply for an NPDES permit that includes the requirements for CAFOs. When a facility is already covered by a storm water permit, the owner or operator should contact the permitting authority to determine what steps are necessary to obtain appropriate permit coverage.

Question F.3 If an unpermitted CAFO is currently following a nutrient management plan that includes all elements required under 40 CFR Parts 122 and 412, would the owner or operator be able to claim that all runoff from the fields is agricultural storm water and, when combined with total containment at the production area, then claim that the CAFO does not need to obtain a permit?

Answer: No. Meeting all the requirements of 40 CFR Part 122 and, when applicable, 40 CFR Part 412, does not exempt a CAFO owner or operator from having to apply for an NPDES permit.

Question F.4 Could a facility apply for and receive an NPDES permit even if the facility does not meet the definition of a CAFO?

Answer: Yes. Any facility not already required to apply for a permit may choose to apply for a permit. Whether or not an NPDES permit is issued is up to the discretion of the permitting authority.

Question F.5 Is an existing operation that expands a new source?

Answer: An existing operation that expands is not necessarily a new source. The permitting authority also considers the extent to which the expansion replaces existing process or production equipment. Under existing provisions at 40 CFR 122.29(b), such expansions at an existing facility would not result in the facility becoming a new source unless the modifications totally replace the process or production equipment that causes the discharge of pollutants, or the new/modified facility's processes are substantially independent of the preexisting source. The preamble to the final rule clarified that "a facility that expands its operation by simply extending existing housing structures by constructing new housing adjacent to existing housing, is not typically considered a new source" [68 FR 7200].

Question F.6 Are the States with approved programs required to request CAFO owners or operators to apply for NPDES permits, or are the CAFO owners or operators supposed to submit their applications without any request from the State?

Answer: It is the responsibility of CAFO owners or operators to seek permit coverage by the deadlines established in the NPDES regulations. States are required to modify their regulations and issue permits consistent with the new regulations. When a State uses individual permits, it typically issues a permit after receipt of a permit application from the facility seeking coverage. When a State uses general permits, as many States will most likely do for permitting the majority of CAFOs, it typically issues the general permit and operators submit Notices of Intent (NOIs) to be covered under the permit subsequent to permit issuance. In both instances, States are required to provide public notification of a draft permit that is adequate to provide interested parties with an opportunity to comment on the permit before it is finalized. A similar process is typically associated with revisions to a State's permit regulations. As a result, it is likely that most CAFO owners or operators will be aware that they must apply for an individual permit or submit an NOI to be covered by a general permit. In addition, although States are not required to do so, many are likely to use various means of communicating to those facilities that must obtain a permit how to do so. In the final analysis, however, the responsibility to seek permit coverage lies with the owner or operator, and failure to do so may result in liability under the Clean Water Act.

Question F.7 Do State permitting authorities have to use Form 2B, or may they develop their own application forms for individual permits?

Answer: States may develop their own forms as long as they include the information required by 40 CFR 122.21.

Question F.8 In Form 2B, what is the difference between *Type of Containment* and *Type of Storage*?

Answer: *Containment* refers to the structures used to control runoff of precipitation that comes into contact with manure, feed, and other wastes on open feedlots. Examples of containment structures are lagoons, holding ponds, and evaporation ponds. *Storage* refers to the structures used to hold manure, litter, or process wastewater to reduce the need for frequent hauling and land spreading, to allow land spreading at a time when soil and climatic conditions are suitable, or to allow nutrient application at or near the crop's growing season. The same types of structures can be used for both containment and storage.

Question F.9 When the 5-year NPDES permit term is up, does a CAFO owner or operator have to submit Form 2B or an NOI again?

Answer: If a CAFO owner or operator has an individual permit it will have to submit a new permit application 180 days prior to the date on which the current NPDES permit expires. If the CAFO owner or operator is covered under an NPDES general permit, the owner/operator should follow the requirements established by the permitting authority for seeking coverage under the general permit. For example, a permitting authority may simply require permittees to submit an NOI to be covered under the revised general permit once the revised general permit is reissued by the State or EPA region.

G. "No Potential to Discharge"

Question G.1 An operation is currently following appropriate land application practices such that the only discharges from its crop fields are discharges of "agricultural storm water" (and there are no discharges or potential discharges from the production area). Can this operation get a "no potential to discharge" finding?

Answer: No. An operation is disqualified from getting a "no potential to discharge" finding if there are <u>any</u> discharges or potential discharges from its land application area to the waters of the United States, even if the only current discharges are discharges of agricultural storm water. The "no potential to discharge" provision is intended to be a protective standard that provides relief from NPDES permit requirements where there truly is no potential for a CAFO's manure or wastewater to reach waters of the United States under any circumstance or climatic condition. To receive a "no potential to discharge" determination, the Large CAFO must demonstrate to a degree of certainty that it has no potential to discharge from either its production or land application areas. Where a CAFO currently meets all the requirements of 40 CFR Part 122 and/or Part 412, including the development of a site-specific nutrient management plan addressing the land application areas of the CAFO, but is not under a permit, there is no basis for determining that the CAFO will always meet those requirements and therefore has no potential to discharge in the future. EPA believes that land application of the operation's manure and wastewater would, in most cases, be enough by itself to indicate that a CAFO does have a potential to discharge.

Question G.2 Does the "no potential to discharge" designation apply regardless of rainfall event size? In other words, does the finding of “no potential to discharge” mean that there is no potential to discharge, no matter how large the storm?

Answer: Yes. There is no design standard above which a facility could discharge and still be eligible for a “no potential to discharge” determination.

Question G.3 If an operator gets a “no potential to discharge” determination and then has a discharge in a large storm, is the operator in violation of the Clean Water Act?

Answer: Yes. A CAFO operator that obtains a “no potential to discharge” determination 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.

Question G.4 If a dry poultry CAFO owner or operator sells all of the CAFO manure to a broker, would the CAFO be able to get the “no potential to discharge” determination?

Answer: This is one factor the permitting authority will consider. The permitting authority will also consider other factors relating to storage, housing, drainage, and location, for example, when making a determination.

Question G.5 The process for making a "no potential to discharge" determination requires that the Director issue a notice to the public stating that such a request has been received. How should the notice be published or made available to the public? Would it have to be published in a newspaper?

Answer: The final rule does not specify how the notice is to be made. However, EPA recommends that permitting authorities follow the same public notice procedures for “no potential to discharge” determinations that they follow when providing public notice for issuance of NPDES permits.

Question G.6 How fast must a State act on a request for a “no potential to discharge” determination?

Answer: 40 CFR 122.23(f) requires the Director to notify any CAFO seeking a “no potential to discharge” determination of its final determination within 90 days of receiving the request.

Question G.7 Does EPA have any guidelines on how permitting authorities should determine whether there is sufficient distance from surface water to determine that there is no potential to discharge?

Answer: EPA does not have guidelines to determine whether there is sufficient distance from surface water to determine "no potential to discharge"; this is a site-specific determination.

Question G.8 Is public notice required only if the State intends to grant a CAFO's request for a "no potential to discharge" determination?

Answer: Yes, but a State could also require public notice if it intends to deny the request. This is not required under the CAFO rule, but States may choose to do so.

Question G.9 Does the State's decision on "no potential to discharge" need to be approved by EPA?

Answer: No. However, EPA intends to work closely with the States on "no potential to discharge" determinations and on the site-specific situations that may apply.

Question G.10 Is "no potential to discharge" a one-time determination? Should States require yearly updates?

Answer: A determination of "no potential to discharge" is a one-time determination subject to the conditions set forth in 40 CFR 122.23(f)(5) and (6). If the facility discharges at any time, it will be in violation of the Clean Water Act and subject to enforcement action. If a CAFO anticipates a change in circumstances that could create the potential to discharge, the CAFO should contact its permitting authority and apply for a permit prior to the change in circumstances. The Director retains the authority to require a permit if the Director determines that the CAFO, in fact, does have a potential to discharge (for example, if circumstances at the facility change). The regulation does not require periodic updates of the information submitted, but permitting authorities may require updates.

H. Permitting Deadlines

Question H.1 What is the permit application deadline for existing CAFOs that did not apply for an NPDES permit under the previous regulations but should have?

Answer: These facilities were required to seek coverage under an NPDES permit prior to April 14, 2003.

Question H.2 When do existing operations with current NPDES permits have to comply with the new rule? What if their current permits were issued in November or December 2002?

Answer: Owners or operators of CAFOs that currently have an NPDES permit must reapply for a permit that includes the requirements of the revised regulations when their current permit expires. If they received new NPDES permits in November or December 2002, they generally will not have to reapply for a permit until 2007. Newly issued NPDES permits must contain the requirements of the new rule.

Question H.3 When do owners or operators of newly defined CAFOs have to obtain coverage under an NPDES permit? Does this include operations that were eligible for the 25-year, 24-hour storm permit exemption under the old regulations?

Answer: Authorized NPDES States will set the time frame in their revised regulations for when the owner or operator of a newly defined CAFO must seek NPDES permit coverage. EPA's regulations require that States not set a date any later than April 13, 2006. In States where EPA is the permitting authority, the deadline is April 13, 2006. This deadline applies to operations that were eligible for the old 25-year, 24-hour storm event exemption and to existing facilities that are newly defined as CAFOs. Note, however, that new sources in newly defined categories must seek coverage under an NPDES permit 180 days prior to commencing operation.

Question H.4 It appears that an AFO that expands its operations and becomes a new discharger CAFO (not a new source) isn't required to turn in any paperwork until 90 days after it has expanded. Is this correct?

Answer: Yes. The regulations require new dischargers to seek coverage as soon as possible, but no later than 90 days after the operation expands to become a new discharger.

Question H.5 Is filing an NOI considered "seeking coverage"?

Answer: Yes, if the facility is submitting the NOI for coverage under a general permit which authorizes coverage for such facility. A facility may satisfy the duty to "seek coverage under an NPDES permit" by submitting a NOI to be covered by a general permit issued by the permitting authority for which the facility is eligible for coverage or by submitting an application for an individual permit.

I. Alternative Technologies and Alternative Standards

Question I.1 What are *voluntary alternative performance standards*?

Answer: Individual CAFO owners or operators may be able to use an alternative control technology if they can demonstrate to the Director that the technology would achieve pollutant reductions equivalent to or better than the baseline effluent guidelines (Best Available Technology Economically Achievable (BAT) of no discharge except for overflows from a properly designed, constructed, operated, and maintained storage structure). This alternative performance standard provides the flexibility and incentive for CAFO owners and operators to develop new and innovative technologies and practices. CAFO owners or operators opting to participate in this option must submit a technical analysis, which includes a calculation of the pollutant reductions based on the site-specific modeled performance of a system designed to comply with the baseline effluent guidelines.

This approach is limited to an evaluation of discharges to surface waters from the production area. A similar program, the *voluntary superior environmental performance standards*, has been developed to address all media across the whole farm from some new sources. See Questions I.2 and I.10 through I.12 for additional information regarding the eligibility for these programs.

Question I.2 What is the difference between *voluntary alternative performance standards* and *voluntary superior environmental performance standards*?

Answer: *Voluntary alternative performance standards* and *voluntary superior environmental performance standards* provide alternatives to the baseline standards established by the ELG. Both are intended to encourage the development of new and more effective technologies to increase pollutant reductions from CAFOs. The alternatives differ in their applicability and scope.

Voluntary alternative performance standards are available to new source and existing Large CAFOs with dairy cows or cattle other than veal calves and to existing Large CAFOs with veal calves, swine, or poultry. When approved by the permitting authority, such CAFOs may take advantage of voluntary alternative performance standards to implement innovative technologies to achieve pollutant reductions for the production area that are equal to or better than those which can be achieved under the baseline ELGs. This alternative applies only to the technology standards for production areas at the CAFO and does not allow alternatives to the land application requirements or additional measures required by the baseline ELG.

Voluntary superior environmental performance standards are available to new source swine, poultry, and veal calf CAFOs. Such CAFOs may request alternative discharge limits that apply across all environmental media (e.g., surface water, air, ground water) and are equal to or better than the new source performance standards for these operations. The voluntary superior environmental performance standards apply to all areas of the operation, not just the production area.

Question I.3 What is the baseline for voluntary alternative performance standards?

Answer: The ELGs allow no discharge from the production area. Whenever precipitation causes an overflow from a storage structure, CAFOs may discharge pollutants in the overflow provided the production area is designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour rainfall event. This comprises the baseline ELG for establishing alternative performance standards. Each CAFO owner or operator desiring to participate in the voluntary alternative performance standards must determine the quantity of pollutants that would be discharged from his or her operation under the baseline standards. In most cases, EPA expects the site-specific baseline ELG is so close to zero discharge as to set an exceptionally high level of performance.

Under the baseline ELG, overflows are allowed where CAFO owners and operators properly design, construct operate, and maintain storage structures to contain all manure, litter, and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour rainfall event. Properly designed storage structures should reflect the maximum length of time anticipated between emptying events. The design storage volume should reflect all wastes accumulated during the storage period; normal precipitation less evaporation; normal runoff during the storage period; the precipitation from a 25-year, 24-hour rainfall event; the runoff from the 25-year, 24-hour rainfall event;

residual solids after liquid has been removed; necessary freeboard to maintain structural integrity; in the case of treatment lagoons, a minimum treatment volume; and additional storage to meet management goals or other regulatory requirements.

Question I.4 What types of practices and emerging technologies is EPA considering for voluntary alternative performance standards? Are constructed wetlands an acceptable alternative?

Answer: To demonstrate pollutant reductions equivalent to or better than the baseline ELG, CAFO owners or operators must submit a technical analysis, which includes calculating the pollutant reductions based on the site-specific modeled performance of a system designed to comply with the baseline ELG.

The regulations do not prescribe or prejudge which technologies will be capable of satisfying the requirements for voluntary alternative performance standards. EPA notes, however, that constructed wetlands are not an emerging technology. Such wetlands have been in use for decades, and EPA's review of this technology has not encountered to date a site-specific case where constructed wetlands were able to provide pollutant reductions equivalent to or better than the baseline ELG. CAFOs may be able to demonstrate alternatives that include constructed wetlands as a component of an innovative system such as a polishing step after several treatment processes.

Question I.5 How site-specific must the alternative technology be?

Answer: The individual CAFO owner or operator must submit the request. The individual CAFO owner or operator must also submit a technical analysis, which includes calculating the pollutant reductions based on the site-specific modeled performance of a system designed to comply with the baseline ELG.

Question I.6 How should permitting agencies consider the effect of a discharge that is proposed for the voluntary alternative performance standards? For example, where discharges occur as a result of a 25-year, 24-hour storm, there may be increased dilution in the receiving stream. In such instances, an ongoing discharge that is proposed for alternative performance standards might have greater water quality impacts, such as during low-flow conditions in streams.

Answer: When developing effluent limits for an NPDES permit, a permit writer must consider limits based on both the technology available to treat the pollutants (i.e., technology-based effluent limits), and limits that are protective of the designated uses of the receiving water (water quality-based effluent

limits). To meet the technology-based effluent limits, the CAFO must meet the minimum standards specified by BAT. The voluntary alternative performance standards provision requires a demonstration that the total quantity of pollutants discharged (or concentration for appropriate pollutant parameters) is equal to or less than the quantity of pollutants that would be discharged under the baseline BAT. Neither lower volumes of discharges nor dilution of waste streams may be used as the basis for comparison with baseline BAT. Although not all alternative technologies necessarily discharge continuously, EPA agrees dilution capacity of the receiving water may be a consideration when determining whether water quality standards can be met. To the extent that an alternative technology results in the discharge of treated effluent, it would be subject to effluent limits based on the demonstrated performance of the technology or water quality standards, whichever is more stringent.

Question I.7 Is it possible that an acceptable voluntary alternative performance standard could be a smaller lagoon?

Answer: Some CAFOs have suggested an acceptable voluntary alternative performance standard could be based on a smaller lagoon that discharges less total volume than a larger lagoon. Neither smaller overall volumes of discharges (due to the volume of rainfall mixed with the manure) nor concentrations (dilution of manure by rainfall) should be used as the basis for comparison with baseline BAT. The voluntary alternative performance standard requires a demonstration that the total quantity of pollutants discharged is equal to or less than the quantity of pollutants that would be discharged under the baseline BAT. This must be expressed as a mass discharge in pounds per day, where appropriate.

Under the baseline ELG, overflows are allowed where CAFO owners and operators properly design, construct, operate, and maintain storage structures to contain all manure, litter, and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour rainfall event. Properly designed storage structures should reflect the maximum length of time anticipated between emptying events. The design storage volume should reflect all wastes accumulated during the storage period; normal precipitation less evaporation; normal runoff during the storage period; the precipitation from a 25-year, 24-hour rainfall event; the runoff from the 25-year, 24-hour rainfall event; residual solids after liquid has been removed; necessary freeboard to maintain structural integrity; in the case of treatment lagoons, a minimum treatment volume; and additional storage to meet management goals or other regulatory requirements.

However, the CAFO may be able to develop a system that includes additional technologies, controls, and BMPs established prior to the lagoon. It is possible such a system could include a smaller lagoon and still achieve pollutant reductions equivalent to or better than the baseline ELG. Therefore, EPA has provided the flexibility for CAFOs to demonstrate that such a system can be implemented if the quantity of pollutants (or concentration for appropriate pollutant parameters) is equal to or less than required by the baseline BAT.

Question I.8 Who approves alternative approaches?

Answer: Although EPA does not "approve" the use of a particular pollution control technology, the ELG allows the Director of the permitting authority to establish effluent limits based on the performance of the alternative technology, thereby enabling the use of alternative technologies.

Question I.9 May voluntary alternative performance standards be applied to land application areas?

Answer: No. The voluntary alternative performance standards (for beef and dairy operations and existing swine, poultry, and veal operations) apply only to the production area. However, the voluntary superior environmental performance standards (for new Large swine, poultry, and veal calf CAFOs) may include land application areas.

Question I.10 Are the voluntary alternative performance standards available for existing facilities?

Answer: Yes. Voluntary alternative performance standards are available for existing Large swine, poultry, and veal calf CAFOs, and to both existing and new Large beef and dairy CAFOs. For new Large swine, poultry, and veal calf CAFOs, the *voluntary superior environmental performance standards* are available.

Question I.11 Are voluntary alternative performance standards available for medium and small facilities?

Answer: No. Voluntary alternative performance standards and voluntary superior environmental performance standards are provisions of the ELGs, which are applicable only to Large CAFOs. The Director already has discretion to determine the appropriate technical standards for Small and Medium CAFOs based on BPJ.

Question I.12 Are voluntary alternative performance standards available to CAFOs that have received a "no potential to discharge" determination?

Answer: No. Because CAFOs that properly demonstrate "no potential to discharge" do not need a permit, the voluntary alternative performance standards and the voluntary superior environmental performance standards are not applicable to CAFOs that have received a determination that they have "no potential to discharge." Presumably, operations that can demonstrate that they have no potential to discharge do not discharge in the first place.

J. Control Technologies

Question J.1 What is a *liquid manure handling system*?

Answer: An operation where animals are raised outside with swimming areas or ponds, or with a stream running through an open lot, or in confinement buildings where water is used to flush the manure to a lagoon, pond, or some other liquid storage structure is considered to have a *liquid manure handling system*.

Question J.2 What is *other than a liquid manure handling system*?

Answer: An operation using confinement buildings with a mesh or slatted floor over a concrete pit, where the manure is scraped into a waste storage facility, or an operation using dry bedding on a solid floor is considered to have *other than a liquid manure handling system*. In this case, the manure and bedding are not combined with water for flushing to a storage structure.

Question J.3 How do the ELGs for poultry operations with wet manure handling systems differ from the ELGs for poultry operations with dry systems?

Answer: The type of manure handling system is used only to determine whether an operation is defined as a Large or Medium CAFO. It does not affect which ELG applies. Therefore, the ELGs for poultry operations with wet systems are the same as the ELGs for operations with dry systems.

For example, all duck CAFOs with 5,000 or more ducks are subject to the same requirements (40 CFR 412 Subpart B) whether the operations use wet manure handling systems or dry systems. (Note: EPA has not changed the ELG for duck operations in the revised regulations.) Similarly, all Large chicken and turkey CAFOs are subject to the same requirements (40 CFR 412 Subpart D). This ELG applies to Large laying hen, broiler, or turkey CAFOs

with liquid manure handling systems and those with other than liquid manure handling systems. Other poultry types, such as emus, are not addressed by the ELGs.

Question J.4 Some States have approved standards or guidance for manure/litter storage and stockpiling for poultry operations. Storage structures for litter are typically designed for "cakeouts," which remove approximately 15 percent of the total litter generated. How do EPA's requirements apply to poultry litter?

Answer: EPA requires all Large chicken and turkey CAFOs to meet the no discharge standard. Whenever precipitation causes an overflow of manure, litter, or process wastewater, an overflow is authorized provided the production area is designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour rainfall event (or a 100-year, 24-hour event for new swine, poultry, and veal sources). For example, long-term, uncovered field stacks would rarely, if ever, meet EPA's no discharge requirements for the production area. However, EPA does not require storage for "whole house" cleanouts, nor does EPA require storage sheds. Rather, the ELG prohibits the discharge of manure, litter, or process wastewater (which includes all contaminated runoff), except when rain causes an overflow, as described above. This may be accomplished through any technologies of the individual CAFO's choosing. EPA believes most poultry facilities will choose to use litter storage sheds to meet the requirements. Other facilities might use in-house storage; berms and uncovered containment areas in arid climates; short-term, covered field stacks during cakeouts; or polypropylene-type covers for long-term storage.

Question J.5 EPA previously proposed requiring lagoon liners. Are lagoon liners required?

Answer: The ELG does not require liners. Pollutant discharges to surface water via a ground water pathway are highly dependent on site-specific variables like topography, climate, distance to surface water, and geologic factors such as depth of ground water, soil porosity and permeability, and subsurface structure. These factors are so site-specific that EPA deemed it inappropriate to adopt a national technology-based standard that addressed discharges to ground water with a direct hydrologic connection to surface waters. Therefore, requirements such as lagoon liners are beyond the scope of the final CAFO ELG [68 FR 7216], and instead are best addressed on a case-by-case basis by the permitting authority. In addition, some State and local regulations may require liners.

Question J.6 Do the regulations include any siting requirements for CAFOs? Specifically, must a swine or poultry facility that meets the 100-year, 24-hour storm design requirement be located outside the 100-year floodplain?

Answer: There are no siting requirements in the revised CAFO regulations. State and local authorities may, however, have such requirements.

K. Design Standards

Question K.1 Do the new regulations allow discharges during chronic rainfall events at existing operations?

Answer: Large CAFOs are subject to a no discharge standard for the production area. CAFOs may not have discharges during dry weather. However, rainfall events, including chronic storm events, may cause Large CAFOs to discharge pollutants in the overflows from storage structures. It is permissible to discharge pollutants in these overflows provided the CAFOs properly design, construct, operate, and maintain the production area, including storage structures, to contain all manure, litter, and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour rainfall event. Properly designed storage structures should reflect the maximum length of time anticipated between emptying events. The design storage volume should reflect all wastes accumulated during the storage period; normal precipitation less evaporation; normal runoff during the storage period; the precipitation from a 25-year, 24-hour rainfall event; the runoff from the 25-year, 24-hour rainfall event; residual solids after liquid has been removed; necessary freeboard to maintain storage integrity; in the case of treatment lagoons, a minimum treatment volume; and additional storage to meet management goals or other regulatory requirements.

A rainfall event greater than a 25-year, 24-hour event does not automatically qualify the CAFO for a permissible overflow. For example, if the facility does not have a properly designed storage structure, or if the facility did not properly operate and maintain the storage structure, the overflow is not permissible.

Question K.2 If there is a series of storms, none of which exceeds the 25-year, 24-hour storm, how can CAFO operators properly "maintain" the production area if they can't dewater in the meantime?

Answer: If the storage structure is properly designed, constructed, operated, and maintained, a permissible overflow may occur. First, the storage structure must be properly designed, which should include a storage volume to reflect the maximum length of time anticipated between emptying events. This storage volume should also accommodate wastes, precipitation, and runoff for this period of time (see Question K.1). Therefore, properly designed systems should already account for the "rainy season" typical of the CAFO's location.

Proper operation and maintenance (O&M) is a standard condition in all NPDES permits. CAFOs must at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used to achieve compliance with permit conditions [40 CFR 122.41(e)]. Proper O&M should include active management of storage structures and manure handling systems, such as periodic solids removal to keep solid separator efficiency, or appropriate dewatering of liquid storage in accordance with a nutrient management plan. Some CAFOs, for example with limited storage capacity, will need to dewater as soon as possible after rainfall events to ensure the proper storage capacity is maintained.

When a series of rainfall events precludes dewatering, the capacity to add more manure to the storage structure is reduced. Even so, it is unlikely that any given series of storms would result in an overflow, unless the series of storms occurs so close to the end of the design storage period that the storage structure is already filled close to capacity. When the facility has been properly designed, constructed, operated, and maintained, and dewatering is still not possible, an overflow caused by precipitation of any size, both smaller and larger than the 25-year, 24-hour rainfall event, is permissible.

Question K.3 Must overflows be composed of only storm water to be permissible?

Answer: No. Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged according to the conditions specified in the regulations [40 CFR 412.31(a)]. This regulation does not address "uncontaminated" storm water.

Question K.4 How are the design standards different for new sources? EPA's brochure, "What are the Federal Requirements for Swine CAFOs?" states that new, large swine operations must contain "large" storms. What does this mean?

Answer: For new Large swine, poultry, and veal calf CAFOs, the production area standard allows no discharge. This is a different standard than the standard for existing Large swine, poultry, and veal calf CAFOs. New Large swine, poultry, and veal calf CAFOs may choose to install waste management and storage facilities designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 100-year, 24-hour rainfall event (as opposed to the 25-year, 24-hour rainfall event for existing CAFOs) to meet this standard. The design standards for new Large beef and dairy CAFOs are the same as those for existing Large beef and dairy CAFOs.

Question K.5 For new source swine, poultry, and veal calf operations, do the New Source Performance Standards (NSPS) authorize overflows from a properly designed and maintained facility in response to a rainfall event larger than the 100-year, 24-hour rainfall event?

Answer: A rainfall greater than a 100-year, 24-hour event does not automatically qualify the CAFO for a permissible overflow. For example, if the facility does not have a properly designed storage structure, or if the facility did not properly operate and maintain the storage structure, the overflow is not permissible. However, it is highly unlikely that any overflow will result from any rainfall if the facility is properly designed, constructed, operated, and maintained.

Question K.6 When must a CAFO operator document that the operation meets the 25-year, 24-hour storm design standard?

Answer: The ELGs include a record-keeping requirement that the CAFO owner or operator must document, among other things, the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity. Such documentation is required as of the date of permit coverage. Additional record-keeping requirements for the production area are specified in the regulations at 40 CFR 412.37(b).

Question K.7 When does a swine producer have to place a depth marker in an open surface liquid impoundment?

Answer: As with the other additional measures required by 40 CFR 412.37(a) and (b), depth markers must be in place as of the date of permit coverage.

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-foot-wide 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-foot-wide 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.2 If an existing CAFO has a current NPDES permit that expires after 2006, does the facility have to comply with the nutrient management plan requirement by 2006 or when the current permit expires?

Answer: CAFO owners or operators with an existing NPDES permit must meet the requirements of their current permit. If the current permit does not require a nutrient management plan, facilities will not be required to develop one during that permit term. However, to obtain coverage under a permit issued after December 31, 2006, they will have to certify that they have developed and will implement a nutrient management plan *upon the date of permit coverage*.

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.4 40 CFR 122.42 (e)(4)(iv) requires that a CAFO's annual report include the total number of acres for land application covered by the nutrient management plan. Since the nutrient management plan does not have to be developed and implemented until December 31, 2006, how can such information be included in annual reports prior to that time?

Answer: Until a CAFO's nutrient management plan has been developed and implemented, the owner or operator should report on those elements that relate to the production area. The CAFO need not report on the nutrient management plan-related issues in 40 CFR 122.42(e)(4)(iv), (v), or (vii). Of course, any annual report submitted after December 31, 2006 (or earlier date set by the permitting authority) should include all such required information related to land application.

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.1 How are the methods to be used for analyzing nutrients and soil established? Would they be part of the technical standards for nutrient management, or would they be specified in the permit? Is EPA going to develop testing methods for nitrogen and phosphorus in manure, especially for liquid, slurry, and solid materials?

Answer: The Director should establish testing protocols for nitrogen and phosphorus as part of the State's technical standards. At this time EPA is not setting a national protocol. EPA expects that most Directors will use the testing protocols recommended by State experts (typically associated, for example, with a land grant university).

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.

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

Answer: No.

P. State Implementation

Question P.1 How do current or existing nutrient management plans compare with the new regulatory requirements?

Answer: The extent to which an operation's current nutrient management plan is consistent with the new regulatory requirements depends on the technical standards adopted by the permitting authority. EPA believes most current nutrient management plans do not adequately address phosphorus (unless the plans have been developed according to NRCS standards for nutrient management plans, see Question P.2). Such plans will need to be revised. As stated in the preamble to the final rule, the nutrient management plan represents a subset of activities within a CNMP prepared according to NRCS standards.

Question P.2 How do the requirements for State technical standards for nutrient management compare with NRCS nutrient management programs?

Answer: The ELG requires Large CAFOs to determine and implement site-specific nutrient application rates that are consistent with the technical standards for nutrient management established by the permitting authority. Permitting authorities have discretion in setting technical standards that minimize phosphorus and nitrogen transport to surface water. Technical standards for nutrient management should appropriately account for the nutrient needs of crops and potential adverse water quality impacts in

establishing methods and criteria for determining appropriate application rates. The permitting authority may use the USDA NRCS Nutrient Management Conservation Practice Standard, Code 590, or other appropriate technical standards, as guidance for development of the applicable technical standard. The current NRCS Nutrient Management technical standard describes three field-specific risk assessment methods to determine whether the land application rate is to be based on nitrogen or phosphorus, or whether land application is to be avoided. These three methods are (1) Phosphorus Index; (2) Soil Phosphorus Threshold Level; and (3) Soil Test Phosphorus Level. The permitting authority has the discretion to determine which of these three methods, or other State-approved alternative method, is to be used.

Question P.3 Will States have a role in approving nutrient management plans (similar to NRCS's CNMP approval process)?

Answer: The revised CAFO regulations do not require the permitting authority to approve nutrient management plans. However, a permitting authority may require that nutrient management plans be submitted to the permitting authority for review or approval. The permitting authority may also require plans to be certified or to be prepared by a certified specialist. In any event, the nutrient management plan should be reviewed for NPDES permit compliance during an inspection.