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Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 122, and 412

[EPA–HQ–OW–2005–0037; FRL–8738–9]

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Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Under the Federal Water Pollution Control Act (Clean Water Act or CWA), EPA is revising the National Pollutant Discharge Elimination System (NPDES) permitting requirements and Effluent Limitations Guidelines and Standards (ELGs) for concentrated animal feeding operations (CAFOs) in response to the order issued by the U.S. Court of Appeals for the Second Circuit in *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486 (2d Cir. 2005). This final rule responds to the court order while furthering the statutory goal of restoring and maintaining the nation's water quality by ensuring that CAFOs properly manage manure generated by their operations.

This final rule revises several aspects of EPA's current regulations governing discharges from CAFOs. EPA is modifying the requirement to apply for a permit by specifying that an owner or operator of a CAFO that discharges or proposes to discharge must apply for an NPDES permit. The final rule also includes an option for an unpermitted CAFO to certify to the permitting authority that the CAFO does not discharge or propose to discharge. In addition, EPA is clarifying how the agricultural stormwater discharge exemption criteria are interpreted for unpermitted Large CAFOs. EPA is also requiring CAFOs seeking permit coverage to submit their nutrient management plans (NMPs) with their applications for individual permits or notices of intent to be authorized under general permits. Permitting authorities are required to review the NMPs and provide the public with an opportunity for meaningful public review and comment. Permitting authorities are also required to incorporate terms of NMPs as NPDES permit conditions. Additionally, this action removes the provision that allowed CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement for new source swine, poultry, and veal calf operations. Instead, this action authorizes permit writers, upon request by swine, poultry, and veal calf CAFOs that are new sources, to establish best management practice no discharge effluent limitations when the facility demonstrates that it has designed an open containment system that will comply with the no discharge requirements.

This final rule also responds to the court's remand orders regarding water quality-based effluent limitations (WQBELs) and pathogens. EPA is clarifying that WQBELs may be required in permits with respect to production area discharges and discharges from land application areas that are not exempt as agricultural stormwater. Finally, EPA is making the finding that the best conventional technology (BCT) limitations established in 2003 also apply to fecal coliform.

DATES: These final regulations are effective December 22, 2008. For judicial review purposes, this final rule is promulgated as of 1 p.m. Eastern Daylight Time, on December 4, 2008, as provided in 40 CFR 23.2.

ADDRESSES: The record for this rulemaking is available for inspection and copying at the Water Docket, located at the EPA Docket Center (EPA/DC), EPA West 1301 Constitution Ave., NW., Washington, DC 20004. The record is also available via EPA Dockets at *http://www.regulations.gov* under docket number OW–2005–0037. The rule and key supporting documents are also available electronically on the Internet at *http://www.epa.gov/npdes/caforule*.

FOR FURTHER INFORMATION CONTACT: For additional information contact Rebecca Roose, Water Permits Division, Office of Wastewater Management (4203M), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, telephone number: (202) 564–0758, e-mail address: *roose.rebecca@epa.gov.* For additional information specific to New Source Performance Standards and BCT Limitations contact Paul Shriner, Engineering and Analysis Division, Office of Science and Technology (4303T), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, telephone number: (202) 566–1076, e-mail address: *shriner.paul@epa.gov*.

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I. General Information

A. Does This Action Apply to Me?

This action applies to concentrated animal feeding operations (CAFOs) as specified in section 502(14) of the Clean Water Act (CWA), 33 U.S.C. 1362(14) and defined in the NPDES regulations at 40 CFR 122.23. Table 1.1 provides a list of standard industrial codes for operations potentially regulated under this revised rule. The rule also applies to States and Tribes with authorized NPDES Programs.

TABLE 1.1—OPERATIONS POTENTIALLY REGULATED BY THIS RULE

Category	Examples of regulated entities	North American Industry Classification System (NAICS)	Standard Industrial Classification (SIC)
Industry	Operators of animal production operations that meet the definition of a CAFO:		
	Beef cattle feedlots (including veal calves)	112112	0211
	Beef cattle ranching and farming	112111	0212
	Hogs	11221	0213
	Sheep and Goats	11241, 11242	0214
	General livestock except dairy and poultry	11299	0219
	Dairy farms	11212	0241
	Broilers, fryers, and roaster chickens	11232	0251
	Chicken eggs	11231	0252
	Turkey and turkey eggs	11233	0253
	Poultry hatcheries	11234	0254
	Poultry and eggs	11239	0259
	Ducks	11239	0259
	Horses and other equines	11292	0272

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated under this rulemaking, you should carefully examine the applicability criteria in § 122.23. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. How Can I Get Copies of This Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under Docket ID No. EPA–HQ–OW–2005–0037. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although listed in the index, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Water Docket in the EPA Docket Center, EPA West, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Water Docket is (202) 566–2426.

2. *Electronic Access.* This **Federal Register** document and key supporting documents are also electronically available on the Internet at *http://www.epa.gov/npdes/agriculture*.

C. Under What Legal Authority Is This Final Rule Issued?

This final rule is issued under the authority of sections 101, 301, 304, 306, 308, 402, and 501 of the CWA. 33 U.S.C. 1251, 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

D. What Is the Comment Response Document?

EPA received a large number of comments on the 2006 proposed rule (71 FR 37,744–87; June 20, 2006) and the 2008 supplemental proposal (73 FR 12,321–40; March 7, 2008). EPA evaluated all of the comments submitted and prepared a Comment Response Document containing both the comments received and the Agency's responses to those comments. The Comment Response Document complements and supplements this preamble by providing more detailed explanations of EPA's final action. The Comment Response Document is available in the Docket.

II. Background

A. The Clean Water Act

Congress enacted the Federal Water Pollution Control Act (1972), also known as the Clean Water Act (CWA), to ''restore and maintain the chemical, physical, and biological integrity of the nation's waters'' (CWA section 101(a)). Among the core provisions, the CWA establishes the NPDES permit program to authorize and regulate the discharge of pollutants from point sources to waters of the U.S. (CWA section 402). Section 502(14) of the CWA specifically includes CAFOs in the definition of the term ''point source.'' Section 502(12) defines the term ''discharge of a pollutant'' to mean ''*any* addition of any pollutant to navigable waters from any point source'' (emphasis added). EPA has issued comprehensive regulations that implement the NPDES program at 40 CFR part 122. The Act also provides for the development of technology-based and water quality-based effluent limitations that are imposed through NPDES permits to control the discharge of pollutants from point sources. CWA sections 301(a) and (b).

B. History of Actions To Address CAFOs Under the NPDES Permitting Program

EPA began regulating discharges of wastewater and manure from CAFOs in the 1970s. EPA initially issued national effluent limitations guidelines and standards for feedlots on February 14, 1974 (39 FR 5704), and NPDES CAFO regulations on March 18, 1976 (41 FR 11,458).

In February 2003, EPA issued revisions to these regulations that focused on the 5% of the nation's animal feeding operations (AFOs) that presented the highest risk of impairing water quality and public health (68 FR 7176–7274; February 12, 2003) (''the 2003 CAFO rule''). The 2003 CAFO rule required the owners or operators of all CAFOs[1] to seek coverage under an NPDES permit, unless they demonstrated no potential to discharge.

[1] The Clean Water Act regulates the conduct of persons, which includes the owners and operators of CAFOs, rather than the facilities or their discharges. To improve readability in this preamble, reference is made to ''CAFOs'' as well as ''owners'' and ''operators'' of CAFOs. No change in meaning is intended.

A number of CAFO industry organizations (American Farm Bureau Federation, National Pork Producers Council, National Chicken Council, and National Turkey Federation (NTF), although NTF later withdrew its petition) and several environmental groups (Waterkeeper Alliance, Natural Resources Defense Council, Sierra Club, and American Littoral Society) filed petitions for judicial review of certain aspects of the 2003 CAFO rule. This case was brought before the U.S. Court of Appeals for the Second Circuit. On February 28, 2005, the court ruled on these petitions and upheld most provisions of the 2003 rule but vacated and remanded others. *Waterkeeper Alliance, et al.* v. *EPA*, 399 F.3d 486 (2d Cir. 2005). The court's decision is described in detail below.

The revisions to the 2003 CAFO rule being published today relate directly to the changes required by the court's decision and continue to maintain the focus on regulating discharges from the universe of high-risk AFOs.

C. Ruling by the U.S. Court of Appeals for the Second Circuit

The Second Circuit's decision in *Waterkeeper* upheld certain challenged provisions of the 2003 rule and vacated or remanded others, as follows.

1. Issues Upheld by the Court

This section discusses provisions of the 2003 CAFO rule that were challenged by either industry or environmental petitioners, but were upheld by the *Waterkeeper* Court and therefore remain unchanged. EPA is not revising any of these provisions and did not solicit comment on them.

(a) Land Application Regulatory Framework and Interpretation of ''Agricultural Stormwater''

The *Waterkeeper* Court upheld EPA's authority to regulate, through NPDES permits, the discharge of manure, litter, or process wastewater that a CAFO applies to its land application area. The court rejected the industry petitioners' claim that land application runoff must be channelized before it can be considered to be a point source discharge subject to permitting. The court noted that the CWA expressly defines the term ''point source'' to include ''any * * * concentrated animal feeding operation * * * from which pollutants are or may be discharged,'' and found that the Act ''not only permits, but demands'' that land application discharges be construed as discharges ''from'' a CAFO. 399 F.3d at 510.

The *Waterkeeper* Court also upheld EPA's determination in the 2003 CAFO rule that precipitation-related discharges of manure, litter, or process wastewater from land application areas under the control of a CAFO qualify as ''agricultural stormwater'' only where the CAFO has applied the manure in accordance with nutrient management practices that ensure ''appropriate agricultural utilization'' of the manure, litter, or process wastewater nutrients. EPA's interpretation of the Act in this regard was reasonable, the court found, in light of Congressional intent in excluding agricultural stormwater from the meaning of the term ''point source'' and given the precedent set in an earlier Second Circuit case, *Concerned Area Residents for the Environment* v. *Southview Farm*, 34 F.3d 114 (2d Cir. 1994). 399 F.3d at 508–09.

(b) Effluent Guidelines

The court rejected the environmental organizations' claim that EPA, in developing best available technology effluent limitations guidelines, had failed to consider the single best performing CAFO and adopt limitations that reflected its performance. The court found that EPA had collected extensive data on the waste management systems at CAFOs and had considered approximately 11,000 public comments on the proposed CAFO rule. The court determined that EPA had either adopted as the basis for its limitations the best performing technology or declined to do so for permissible reasons. 399 F.3d at 513.

The court upheld EPA's decision in the 2003 rule relating to groundwater controls. In the 2003 rule, EPA stated that the Agency believed that requirements limiting the discharge of pollutants to surface water via groundwater that has a direct hydrologic connection to surface water should be addressed on a site-specific basis. The Agency also stated that nothing in the 2003 rule was to be construed to expand, diminish, or otherwise affect the jurisdiction of the CWA over discharges to surface water via groundwater that has a direct hydrologic connection to surface water. 399 F.3d at 514–15.

The court upheld the analytic methodologies that EPA used for determining whether the technology-based permit requirements for CAFOs set in the 2003 rule would be economically achievable by the industry as a whole. 399 F.3d at 515–18.

2. Issues Vacated by the Court

The following are the elements of the 2003 rule that the *Waterkeeper* Court found to be unlawful and therefore vacated.

(a) Duty To Apply

The CAFO industry organizations argued that EPA exceeded its statutory authority by requiring all CAFOs to either apply for NPDES permits or demonstrate that they have no potential to discharge. The court agreed with the CAFO industry petitioners on this issue and therefore vacated the ''duty to apply'' provision of the 2003 CAFO rule.

The court found that the duty to apply, based on the potential to discharge, was invalid because the CWA subjects only actual discharges to permitting requirements rather than potential discharges. The court acknowledged EPA's policy considerations for seeking to impose a duty to apply based on the potential to discharge but found that the Agency lacked statutory authority to do so. 399 F.3d at 505.

(b) Nutrient Management Plans (NMPs)

The court concluded that the 2003 CAFO rule impermissibly: (1) Empowered permitting authorities to issue permits without any meaningful review of a CAFO's NMP, (2) failed to require that the terms of the nutrient management plan be included as effluent limitations in the NPDES permit, and (3) violated the CWA's public participation requirements. The court agreed with the environmental petitioners on these three issues.

The court relied on provisions of the Act that authorize point source discharges only where NPDES permits ''ensure that every discharge of pollutants will comply with all applicable effluent limitations and standards,'' citing CWA sections 402(a)(1), (a)(2), and (b). Because the 2003 CAFO rule did not provide for permitting authority review of a CAFO's nutrient management plan before the permit was issued, the court found that the rule did not ensure that each CAFO's discharges comply with these CWA provisions. The court also found that the terms of the NMP themselves are ''effluent limitations'' as that term is defined in the Act and therefore must be made part of the permit and be enforceable as required under CWA sections 301 and 402. The court also held that as effluent limitations, those terms must be made available for public review. 399 F.3d at 499–502.

3. Issues Remanded by the Court

The *Waterkeeper* Court also remanded other aspects of the CAFO rule to EPA ''for further clarification and analysis.''

(a) Water Quality-Based Effluent Limits

The court agreed with EPA that agricultural stormwater is excluded from the meaning of the term ''point source'' and therefore is not subject to water quality-based effluent limitations in permits. However, the court directed EPA to ''clarify the statutory and evidentiary basis for failing to promulgate water quality-based effluent limitations for discharges other than agricultural stormwater discharges as that term is defined in 40 CFR 122.23(e),'' and to ''clarify whether States may develop water quality-based effluent limitations on their own.'' 399 F.3d at 524.

(b) New Source Performance Standards—100-Year Storm Standard

The 2003 CAFO rule set new source performance standards (NSPS) for swine, poultry, and veal calf CAFOs at no discharge. A CAFO in these categories could fulfill this requirement by showing that either (1) its production area was designed to contain all manure, litter, or process wastewater, and precipitation from a 100-year, 24-hour storm, or (2) it would comply with ''voluntary superior environmental performance standards'' based on innovative technologies, under which a discharge from the production area would be allowed if it was accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media (*e.g.*, air emissions). The court found that EPA had neither justified in the record nor provided an adequate opportunity for public comment for either of these provisions. As a result, the court remanded these provisions to EPA to clarify, via a process that adequately involves the public, the statutory and evidentiary basis for them. 399 F.3d at 520–21.

(c) BCT Effluent Guidelines for Pathogens

The court held that the 2003 CAFO rule violated the CWA because EPA had not made an affirmative finding that the BCT-based Effluent Limitations Guidelines (ELGs), *i.e.*, the ''best conventional technology'' guidelines for conventional pollutants such as fecal coliform, do in fact represent BCT for pathogens. The court remanded this issue to EPA for such a finding. 399 F.3d at 519.

D. What Requirements Still Apply to CAFOs?

The *Waterkeeper* decision either upheld or did not address most provisions of the 2003 CAFO rule. This section describes certain key portions of the rule that were not challenged in *Waterkeeper*. These unchallenged provisions are addressed in this final rule only to provide background information and are not in any way reopened or affected by this rulemaking.

The definitions provided in 40 CFR 122.23(b) of the 2003 CAFO rule remain in effect and are unchanged. First, an operation must be defined as an animal feeding operation (AFO) before it can be defined as a concentrated animal feeding operation (CAFO). 40 CFR 122.23. The term ''animal feeding operation'' is defined by EPA regulation as a ''lot or facility'' where animals ''have been, are or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period and crops, vegetation, forage growth, or post harvest residues are not sustained in the normal growing season over any portion of the lot or facility.''

Whether an AFO is a CAFO depends primarily on the number of animals confined, which is also unchanged. Large CAFOs are AFOs that confine more than the threshold number of animals detailed in 40 CFR 122.23(b)(4). Medium CAFOs confine fewer animals than Large CAFOs and also: (1) Discharge pollutants into waters of the U.S. through a man-made ditch, flushing system, or other similar man-made device; or (2) discharge pollutants into waters of the U.S. which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the confined animals. 40 CFR 122.23(b)(6)(ii). The NPDES permitting authority also may, on a case-by-case basis, designate any medium or small AFO, as a CAFO after conducting an on-site inspection and finding that the facility ''is a significant contributor of pollutants to waters of the United States.'' 40 CFR 122.23(c). The permitting authority may not exercise its authority to designate a small AFO as a CAFO unless pollutants are discharged into waters of the U.S. through a man-made ditch, flushing system, or other similar man-made device, or are discharged into waters of the U.S. which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation. 40 CFR 122.23(c)(3).

As previously described, the court upheld EPA's definition of ''agricultural stormwater discharge'' in relation to discharges from land application areas under the control of a CAFO in 40 CFR 122.23(e). Discharges of manure, litter, or process wastewater from land application areas under the control of a CAFO are discharges from the CAFO (i.e., point source discharges) unless they are agricultural stormwater discharges, which are exempt from permit requirements. Section 122.23(e) provides that precipitation-related discharges of manure, litter, or process wastewater from a CAFO's land application areas are agricultural stormwater discharges, provided that ''the manure, litter, or process wastewater has been applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in § 122.42(e)(1)(vi)–(ix).''

The court ruling also did not affect the nutrient management planning requirements for permitted CAFOs established in the 2003 CAFO rule. All CAFOs that apply for permits must develop and implement an NMP that meets the requirements of 40 CFR 122.42(e) and, for Large CAFOs subject to 40 CFR part 412, subpart C or D, 40 CFR 412.4. The NMP identifies the necessary actions to ensure that runoff is eliminated or minimized through proper and effective manure, litter, or process wastewater management, including compliance with the ELGs as applicable. Permitted CAFOs must comply with all applicable recordkeeping and reporting requirements, including those specified in § 122.42(e).

The court ruling also did not affect the ELG requirements for Large CAFOs, with the exception of new source performance standards (NSPS) for swine, poultry, and veal calf operations. ELG requirements ensure the appropriate storage of manure, litter, and process wastewater and proper land application practices. They vary depending upon the type of animals confined: Subpart A for horses and sheep; subpart B for ducks; subpart C for dairy cattle, heifers, steers, and bulls; and subpart D for swine, poultry, and veal calves. 40 CFR part 412. Additionally, NSPS for beef and dairy operations were not affected by the decision and remain unchanged (40 CFR 412.35).

Permitted small and medium CAFOs are not subject to the ELGs specified in part 412. Rather, they must comply with technology-based requirements developed by the permitting authority on a case-by-case basis (*i.e.*, best professional judgment (BPJ)), pursuant to CWA section 402(a)(1)(B) and as defined in 40 CFR 125.3(c)(2) and (d).

E. EPA's Response to the Waterkeeper Decision

On June 30, 2006, EPA published a proposed rule to revise the Agency's regulations governing discharges from

CAFO's in response to the *Waterkeeper* decision. 71 FR 37,744. In summary, EPA proposed to require only owners or operators of those CAFOs that discharge or propose to discharge to seek authorization to discharge under a permit. Second, EPA proposed to require CAFOs seeking authorization to discharge under individual permits to submit their NMPs with their permit applications or, under general permits, with their notices of intent. Permitting authorities would be required to review the NMP and provide the public with an opportunity for meaningful public review and comment. Permitting authorities would also be required to incorporate terms of the NMP as NPDES permit requirements. Additionally, EPA proposed a process for modifying a CAFO's NPDES permit to incorporate changes to the NMP during the permit term by designating permit modifications in accordance with that process to be ''minor modifications of permits'' under 40 CFR 122.63. The 2006 proposed rule also addressed the remand of issues for further clarification and analysis. These issues concerned clarifications regarding the applicability of water quality-based effluent limitations (WQBELs) to CAFO discharges; NSPS for swine, poultry, and veal CAFOs; and BCT effluent limitations guidelines for fecal coliform.

A March 7, 2008, **Federal Register** notice supplemented the 2006 proposed rule by proposing additional options considered by EPA for inclusion in this final rule in response to the Second Circuit's decision in the *Waterkeeper* decision. In that notice, EPA proposed a voluntary option for a CAFO to certify that the CAFO does not discharge or propose to discharge based on an objective assessment of the CAFO's design, construction, operation, and maintenance. EPA also proposed a framework for identifying the terms of the NMP and three alternative approaches for addressing rates of application of manure, litter, and process wastewater when identifying terms of the NMP to be included in the permit. In the 2008 supplemental proposal, EPA sought comment only on the issues presented in the 2008 supplemental proposal.

In addition to the changes made through this rulemaking, EPA extended certain deadlines in the NPDES permitting requirements and ELGs in two separate rulemakings in order to allow the Agency adequate time to complete this rulemaking in response to the *Waterkeeper* decision, in advance of those deadlines. The principal purpose of these rulemakings was to provide additional time for the Agency to complete this final rule. Neither of these date extension rules addressed any of the substantive issues addressed in this final rule or promulgated any provisions in response to the *Waterkeeper* decision. The first rule revised dates established in the 2003 CAFO rule by which facilities newly defined as CAFOs were required to seek permit coverage and by which all CAFOs were required to develop and implement nutrient management plans. 71 FR 6978–84 (February 10, 2006). EPA extended the date by which operations defined as CAFOs as of April 14, 2003, that were not defined as CAFOs prior to that date, were required to seek NPDES permit coverage, from February 13, 2006, to July 31, 2007. EPA also amended the date by which operations that become defined as CAFOs after April 14, 2003, due to operational changes that would not have made them a CAFO prior to April 14, 2003, and that are not new sources, were required to seek NPDES permit coverage, from April 13, 2006, to July 31, 2007. Finally, EPA extended the deadline by which CAFOs were required to develop and implement nutrient management plans, from December 31, 2006, to July 31, 2007. That rulemaking revised all references to the date by which CAFOs must develop and implement NMPs as specified in the 2003 CAFO rule.

As a result of the extensive array of public comments on the issues raised by the *Waterkeeper* decision, EPA was unable to complete this final rule prior to July 31, 2007. Thus, EPA published a second revision of the compliance dates on July 24, 2007, extending the dates from July 31, 2007, to February 27, 2009. The preamble to the second date change rule explained EPA's belief that the February 27, 2009, deadlines were appropriate because they would provide additional time for States, the regulated community, and other stakeholders to adjust to the new regulatory requirements. *See* 72 FR 40,245–50. In the 2008 supplemental rule, EPA requested comment on further extending the compliance deadline. For additional discussion of compliance dates, see section III.D of this preamble.

III. The Final Rule: Revisions to the 2003 CAFO Rule in Response to *Waterkeeper*

This final rule responds to the Second Circuit Court's vacature and remand orders.

A. Duty To Apply for a Permit

1. Provisions in the 2003 CAFO Rule

(a) Duty To Apply

The 2003 CAFO rule required all CAFOs to seek authorization to discharge under an NPDES permit unless the Director, *i.e.*, the permitting authority, determined that the CAFO had no potential to discharge.

(b) ''No Potential To Discharge'' Determination

The 2003 CAFO rule included a process for CAFOs to seek a ''no potential to discharge'' determination by the Director. Where the Director determined, based on information supplied by the CAFO operator, that a CAFO had no potential to discharge manure, litter, or process wastewater to waters of the U.S., the CAFO operator had no duty to apply for a permit, unless circumstances at the facility changed such that the facility would have the potential to discharge. Examples of facilities that possibly would have qualified for this exemption included facilities in very arid areas, facilities that are down slope from waters of the U.S., and facilities with completely enclosed operations.

2. Summary of the Second Circuit Court Decision

The Second Circuit Court of Appeals vacated the provision that required all CAFO owners or operators with a potential to discharge to apply for an NPDES permit. The court held that the Clean Water Act (CWA) authorizes EPA to require permits for the actual discharge of pollutants, but not for mere potential discharges. Because the 2003 CAFO rule imposed an obligation on all CAFOs to either apply for an NPDES permit or affirmatively demonstrate that they have no potential to discharge, the court ruled that it exceeded EPA's authority under the CWA. *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486, 506 (2d Cir. 2005).

3. This Final Rule

To address the court's decision on the duty to apply, EPA is revising the 2003 CAFO rule in three ways:

- Deleting the requirement that all CAFOs apply for an NPDES permit to provide instead that all CAFOs that ''discharge or propose to discharge'' have a duty to apply when they propose to discharge;
- Eliminating the procedures for a no potential to discharge determination; and
- Establishing a voluntary option for unpermitted CAFOs to certify that they

do not discharge or propose to discharge.

(a) Duty To Seek Permit Coverage

EPA proposed to replace the ''duty to apply'' requirement adopted in the 2003 rule, which states that all CAFO owners or operators must seek coverage under an NPDES permit unless they demonstrate ''no potential to discharge'' (40 CFR 122.21(a)(1) and 40 CFR 122.23(a) and 40 CFR 122.23(d)(1)) with a modified ''duty to apply'' provision. The 2006 proposed rule would have required that all CAFOs that ''discharge or propose to discharge'' seek coverage under an NPDES permit, which is the same language that applies generally to point sources under longstanding NPDES regulations at § 122.21(a)(1).

This rule adopts the approach in the 2006 proposed rule by replacing the ''duty to apply'' requirement of the 2003 rule with a requirement that a CAFO that ''discharges or proposes to discharge'' must seek authorization to discharge under an NPDES permit. Because a number of commenters misunderstood, or were confused by, the term ''propose to discharge,'' EPA is providing additional clarification in this rule and preamble on how operators should evaluate whether they discharge or propose to discharge. While commenters generally agreed that the changes proposed by EPA were consistent with the Second Circuit decision, some commenters thought that ''propose to discharge'' and ''potential to discharge'' were not sufficiently distinguishable, and that ''proposed'' discharges could be understood as contrary to the *Waterkeeper* court's holding that only ''actual'' discharges are subject to CWA requirements.

EPA disagrees with these commenters. Including a duty to apply for CAFOs that ''propose to discharge'' is not the same as requiring a permit for CAFOs with only a ''potential to discharge.'' Unlike the 2003 rule, which categorically required a permit for any CAFO with a ''potential to discharge,'' this final rule calls for a case-by-case evaluation by the CAFO owner or operator as to whether the CAFO discharges or proposes to discharge from its production area or land application area based on actual design, construction, operation, and maintenance. ''Potential'' connotes the possibility that there might—as opposed to will—be a discharge, which, as the *Waterkeeper* court held, is not sufficient under the CWA to trigger NPDES permitting requirements. In contrast to the 2003 rule, this rule requires a case-by-case assessment by each CAFO to determine whether the CAFO in question, due to its individual attributes, discharges or proposes to discharge. Therefore, revised § 122.23(d)(1) requires only CAFOs that actually discharge to seek permit coverage and clarifies that a CAFO proposes to discharge if based on an objective assessment it is designed, constructed, operated, or maintained such that a discharge will occur, not simply such that it might occur. Consistent with the *Waterkeeper* decision, CAFOs that are required to seek permit coverage must do so when they propose to discharge. (See below for discussion of the provision relating to when a CAFO must seek permit coverage, 40 CFR 122.23(f).) Thus, it is the responsibility of the CAFO owner or operator to seek authorization to discharge at the time they propose to discharge. A CAFO that discharges without a permit is in violation of the CWA section 301(a) prohibition on such discharges and additionally has the burden of establishing that it did not propose to discharge prior to the discharge (unless the permitting authority has a current, complete certification from that CAFO as provided by 40 CFR 122.23(j)(2), discussed below). If it is determined that it did, in fact, propose to discharge prior to the discharge (that is, it was designed, constructed, operated, or maintained such that a discharge would occur), it is also in violation of the § 122.23(d)(1) duty to apply. Section 122.23(j)(2) also clarifies how a CAFO may satisfy the burden of establishing that it did not propose to discharge.

Under section 301(a) of the CWA, only those CAFO discharges authorized by an NPDES permit (or otherwise authorized by the statute), regardless of the volume or duration of the discharge, are allowed. Any discharge from a CAFO, even one that is unplanned or accidental, is illegal unless it is authorized by the terms of a permit or is agricultural stormwater. While EPA recognizes that not every discharge indicates that the CAFO will discharge in the future, an operator should certainly consider any unplanned or accidental discharge that may have occurred in the past in deciding whether to seek permit coverage. CAFO operators must objectively assess whether a discharge from the CAFO, including from the production area or land application areas under the control of the CAFO, is occurring or will occur for purposes of determining whether to obtain permit coverage.

It is well established that ''discharge'' is not limited to continuous discharges of pollutants from a point source to waters of the U.S., but also includes intermittent and sporadic discharges. ''Intermittent or sporadic violations do not cease to be ongoing until the date when there is no real likelihood of repetition.'' *Chesapeake Bay Foundation* v. *Gwaltney of Smithfield*, 890 F.2d 690, 693 (4th Cir. 1989). Such intermittent, sporadic, even occasional, discharges may in fact be the norm for many CAFOs, but they are nonetheless ''discharges'' under the CWA and are prohibited unless authorized under the terms of an NPDES permit. CAFOs that have had such intermittent or sporadic discharges in the past would generally be expected to have such discharges in the future, and therefore be expected to obtain a permit, unless they have modified their design, construction, operation, or maintenance in such a way as to prevent all discharges from occurring.

EPA received a number of comments concerning past discharges. Some commenters asserted that a prior discharge is not, by itself, a sufficient basis for requiring a permit and observed that it is quite possible that a CAFO may have eliminated the cause of the discharge. EPA agrees that not every past discharge from a CAFO necessarily triggers a duty to apply for a permit; however, a past discharge may indicate that the CAFO discharges or proposes to discharge if the conditions that gave rise to the discharge have not changed or been corrected. See, *e.g., Gwaltney of Smithfield. Ltd.* v. *Chesapeake Bay Foundation,* 484 U.S. 49, 57 (1987) (''a reasonable likelihood that a past polluter will continue to pollute in the future'' is a continuous or intermittent violation); *American Canoe Ass'n* v. *Murphy Farms, Inc.,* 412 F.3d. 536 (4th Cir. 2005) (CWA violation continues where corrective measures are insufficient to eliminate real likelihood of repeated discharges). The same rationale that led the courts in these cases to conclude that the point sources in question were discharging in violation of the CWA underlies the final rule's requirement that CAFOs must seek permit coverage when they discharge or propose to discharge (*i.e.*, are designed, constructed, operated, or maintained such that a discharge will occur). Sections 122.23(d)(1) and (f).

An uncorrected past discharge is not the only indicator that operators should consider in assessing whether the CAFO discharges or proposes to discharge. Other key factors the operator should consider include the proximity of the production area to waters of the U.S., whether the CAFO is upslope from waters of the U.S., and climatic conditions. Similarly, the type of waste storage system, storage capacity, quality

of construction, and presence and extent of built-in safeguards are important factors. Standard operating procedures and level of maintenance are also critical factors for the operator to consider when assessing whether a CAFO discharges or proposes to discharge. Such considerations contributed to EPA's decision to include in this final rule an option for unpermitted CAFOs to certify that they do not discharge or propose to discharge by meeting the criteria in 40 CFR 122.23(i)(2), discussed in detail below. EPA encourages unpermitted CAFOs that choose not to certify to consider the set of criteria for certification eligibility when deciding whether to seek permit coverage, and this final rule provides in § 122.23(j)(2) that these same criteria may be used to establish that a CAFO did not propose to discharge prior to a discharge occurring.

As a result of the revisions to 40 CFR 122.23(d) and (f), only CAFOs that discharge or propose to discharge are required to seek permit coverage, and a CAFO that proposes to discharge must seek coverage as soon as it proposes to discharge in order to avoid having unpermitted discharges. In the event of a discharge from an unpermitted CAFO, the CAFO operator would be in violation of the CWA prohibition against discharging without a permit. Under this final rule, if the CAFO proposed to discharge prior to the discharge, the CAFO would also be in violation of the requirement in § 122.23(d)(1) and (f), implementing sections 308 and 402 of the CWA, that CAFOs seek permit coverage when they propose to discharge.

In revised § 122.23(d)(1), EPA is clarifying that ''a CAFO proposes to discharge if it is designed, constructed, operated, or maintained such that a discharge will occur.'' EPA intends that the CAFO operator should make an objective assessment of the operation to determine whether the CAFO will discharge. Such an objective assessment would take into account not only the characteristics of the manmade aspects of the CAFO itself, but climatic, hydrological, topographical, and other characteristics beyond the operator's control that impact whether the CAFO will discharge, given the design, construction, operation and maintenance of the CAFO.

To assist CAFO operators in making this objective assessment and to provide assurance for CAFOs deciding not to seek permit coverage that they are not required to obtain permit coverage, EPA is finalizing a voluntary certification option, proposed in the 2008 supplemental proposal. This option provides a means for a CAFO to certify that it does not discharge or propose to discharge. The voluntary certification provisions are discussed below in section III.A.3(c) of this preamble.

This rule is consistent with the *Waterkeeper* decision because the duty to apply for a permit only arises when a CAFO discharges or proposes to discharge, that is, when it discharges or is designed, constructed, operated, or maintained such that a discharge will occur. It is also consistent with *Chesapeake Bay Foundation* v. *Gwaltney of Smithfield,* discussed above, which found a violation under the CWA where it is reasonably likely that a discharge will occur due to existing circumstances. This rule derives from sections 402(a)(3) and 308 of the CWA, 33 U.S.C. 1342(a)(3), 1318. Under section 402(a)(3), EPA is required to establish a permit program that, among other things, ensures compliance with all applicable requirements of sections 301 (requirements for establishing technology-based and water quality-based effluent limitations), 306 (requirements for establishing new source performance standards), 308 (requirements relating to inspections, monitoring and entry, including requests for information to determine compliance status or support development of effluent limitations) and 402 (NPDES permits).

Section 301(a) prohibits the discharge of pollutants, except in compliance with specific provisions in the CWA. Particularly relevant to CAFOs, section 301(b) provides that ''there shall be achieved'' effluent limitations controlling pollutants discharged from point sources. Section 308(a) provides EPA broad authority to require the owner or operator of any point source (including CAFOs) to provide information necessary to develop effluent limitations, to ''carry out'' section 402, and to ''carry out'' the objectives of the Act, which are set forth in CWA section 101(a). Under section 501(a) EPA is authorized to prescribe ''such regulations as are necessary to carry out'' its functions under the CWA. Any permit program established to carry out section 402 must, of necessity, require point sources that discharge or propose to discharge to submit information to allow the permitting authority to determine prior to issuance of a permit what effluent limitations should apply to a discharger and be included in its permit (including providing the public and any other affected State notice and opportunity for public comment, as required by section 402(b)(3)). It is therefore reasonable for EPA to require those CAFOs that discharge or propose to discharge to apply for NPDES permit coverage.

Some commenters on the 2006 proposed rule opposed regulating entities that ''propose'' to discharge, or alternatively, suggested that EPA should clarify that ''propose'' means ''intend'' or ''plan.'' While EPA acknowledges that ''propose'' to discharge could be understood to mean ''intend'' or ''plan'' to discharge, under this final rule ''propose to discharge'' means that the CAFO is designed, constructed, operated, or maintained such that it will discharge. This is consistent with the *Waterkeeper* decision because a mere ''potential'' to discharge is not sufficient to trigger the revised duty to apply. Accordingly, as previously discussed, revised § 122.23(d)(1) clarifies that ''a CAFO proposes to discharge if it is designed, constructed, operated, or maintained such that a discharge will occur.'' The CAFO's decision as to whether to apply for a permit should be based on an objective assessment of conditions at that operation. As discussed below, under this final rule, a CAFO that is not designed, constructed, operated, or maintained in a manner such that the CAFO does or will discharge is not required to seek permit coverage under § 122.23(d)(1) and may choose to take advantage of the voluntary no discharge certification.

Some commenters on the 2006 proposed rule requested that EPA specifically state in the regulation that facilities designed to the 25-year, 24-hour design standard have not ''proposed'' to discharge. One commenter questioned whether existing operations should be required to obtain permit coverage if they have installed structures and production area BMPs using Natural Resources Conservation Service (NRCS) standards and if they have been operating without discharging. The commenter indicated that ''since EPA is requiring that a zero discharge standard be met only for certain new CAFOs and not existing CAFOs, it is unreasonable to expect all existing animal operations that do not otherwise come under a permit to meet a zero discharge standard.''

EPA disagrees that CAFOs designed for the 25-year, 24-hour storm should be categorically excluded from the requirement to apply for a permit simply based on their design standard. EPA also believes that it is reasonable to expect unpermitted CAFOs to meet a zero discharge standard. The CWA is very clear that point source discharges from CAFOs are illegal unless the operator has applied for and obtained an NPDES permit. Thus, ''zero discharge'' is the only standard to which EPA can

hold unpermitted CAFOs under the CWA. Large storms and chronic rainfall events do occur and production areas built to the 25-year, 24-hour storm design standard can and do discharge during precipitation events. Under the CWA, as previously discussed, a violation of the prohibition against discharging without a permit occurs even if the discharge was not planned or intended. Conversely, in the event of a discharge from a permitted CAFO, the discharge will not violate the CWA if the CAFO is in compliance with its permit.

EPA notes that design is only one aspect for a CAFO to consider when assessing whether or not to apply for a permit. Construction, operation, and maintenance are equally important components of a CAFO's operation and can make the difference between a CAFO that discharges and one that does not. With regard to the commenter's question about the applicability of NRCS standards, a CAFO's decision as to whether to seek permit coverage should be based on an objective assessment of conditions at the operation, including, but not limited to, the manure storage design standard. EPA notes that whether or not a CAFO is designed according to NRCS standards may be an important component of the objective evaluation it undertakes to assess whether it is designed, constructed, operated, or maintained such that a discharge will occur. A CAFO that does not discharge or propose to discharge is not required to seek permit coverage under § 122.23(d)(1) and may be eligible for no discharge certification under 40 CFR 122.23(i).

CAFO NPDES permit requirements include, but are not limited to, best management practices (BMPs) to eliminate discharges from the production area under most circumstances and to ensure appropriate agricultural utilization of nutrients in manure, litter, and process wastewater that is applied to land under the CAFO's control. EPA expects that an unpermitted CAFO would also need to implement BMPs in order to ensure that it does not discharge or propose to discharge. However, in many, if not most, cases the BMPs called for will be more rigorous than those required for permitted CAFOs, because the operator of an unpermitted CAFO is never authorized to discharge under CWA section 301(a). Permitted CAFOs have greater flexibility because, in addition to being authorized to discharge under the circumstances prescribed by the permit, other discharges can be excused when the conditions contained in EPA's upset and/or bypass regulations are met. *See* 40 CFR 122.41(m) and (n).

In contrast to commenters who believe that some non-discharging CAFOs will needlessly go through the permitting process, other commenters expressed concern that some CAFOs that should have permits will not seek needed permit coverage. They contended that many CAFOs are currently discharging without a permit and objected to having CAFOs make the determination themselves as to whether or not they discharge or propose to discharge, as such an approach would, in their view, establish a self-permitting scheme. These commenters further contended that the administrative record from the 2003 rule supports the presumption that all Large CAFOs actually discharge and, therefore, such CAFOs should be required to obtain a permit.

EPA does not agree that the rule establishes a self-permitting scheme. As is the case with all point sources, it is up to the operator to determine whether or not to apply for a permit in the first instance, by assessing whether the point source (CAFO) discharges or proposes to discharge. Point sources that do not discharge or propose to discharge are not subject to CWA permitting requirements. *See* § 122.21(a)(1). Regarding the administrative record for the 2003 rule, that rule established a duty to apply for all CAFOs unless the CAFO could demonstrate to the satisfaction of the permitting authority that it had no ''potential to discharge.'' That provision was vacated by the Second Circuit, which noted that EPA did not argue that the administrative record supported a regulatory presumption that all Large CAFOs actually discharge. 399 F.3d at 506, n.22. Thus, consistent with the *Waterkeeper* decision, EPA is promulgating a rule which requires those CAFOs that discharge or propose to discharge, but not CAFOs with a mere ''potential'' to discharge, to seek permit coverage on a case-by-case basis. With regard to the comments that EPA should establish a categorical presumption that all Large CAFOs discharge, the Agency is evaluating various options for exploring the nature of discharges from Large CAFOs.

Finally, this rule revises the regulatory provisions for when a CAFO must seek permit coverage and the duty to maintain permit coverage for CAFOs. The final rule clarifies that those CAFOs that are required under § 122.23(d)(1) to seek permit coverage must do so ''when the CAFO proposes to discharge,'' unless a later deadline, such as February 27, 2009, is specified for the specific category of operation. EPA is recodifying 40 CFR 122.23(g) as § 122.23(f) because the paragraph codified as § 122.23(f) in the 2003 rule is being removed. See section III.A.3(b) of this preamble. Revised § 122.23(f) is consistent with the revised duty to apply requirement in § 122.23(d)(1) and EPA's authority under sections 301, 308 and 402 of the CWA to require CAFOs that actually discharge to seek permit coverage. None of the specific timeframes for the various categories of CAFOs in paragraphs (1)–(5) of § 122.23(f), as amended by the 2007 date change rule (72 FR 40,245), is affected by this rule. The revised language in the introductory paragraph of § 122.23(f) simply conforms to the requirements of § 122.23(d)(1).

EPA is making corresponding revisions to the regulatory text requiring CAFOs to maintain permit coverage. Due to the fact that § 122.23(f) as codified in 2003 is being removed, EPA is recodifying 40 CFR 122.23(h), ''Duty to Maintain Permit Coverage,'' as § 122.23(g). See section III.A.3(b) of this preamble. Also, in the 2006 proposed rule, EPA proposed to revise this provision to address the *Waterkeeper* court's decision vacating the requirement for all CAFOs to seek permit coverage unless they obtained a no potential to discharge determination. *See* 71 FR 37,785. In this final rule (as in the proposed rule), a CAFO would not need to reapply based solely on the fact of having had a permit, if the permit had been terminated in accordance with the NPDES provisions at 40 CFR 122.64(b). Since a CAFO that terminated permit coverage is no longer a permitted CAFO, it is not subject to the duty to maintain permit coverage provision. Consistent with the requirement that only CAFOs that discharge or propose to discharge seek NPDES permit coverage, new § 122.23(g) excludes CAFOs that will not discharge or propose to discharge upon expiration of the permit from the requirement to reapply 180 days in advance of permit expiration.

(b) ''No Potential To Discharge'' Determination

In this final rule, EPA is deleting the regulatory provisions adopted in the 2003 CAFO rule allowing CAFOs to demonstrate that they have no potential to discharge and authorizing the Director to make such a determination. 40 CFR 122.23(d)(2) and 122.23(f). Because EPA is not requiring CAFOs to seek permit coverage based merely on potential to discharge, this provision is no longer relevant to determining whether or not a facility needs to seek permit coverage. This final rule is

unchanged from the 2006 proposed rule in this respect.

Overall, most commenters supported eliminating the ''no potential to discharge'' provisions in the CAFO regulations, noting that it is no longer necessary because only CAFOs that discharge or propose to discharge must apply for permits. One State observed that the ''no potential to discharge'' criteria could still be useful to CAFOs in determining whether they need to apply for a permit. While these criteria may continue to be useful to CAFO owners and operators for that purpose, EPA is eliminating these provisions from 40 CFR 122.23 of the regulations.

(c) Voluntary No Discharge Certification

In this final rule, the Agency is adopting a new provision that allows CAFOs to voluntarily certify that the CAFO does not discharge or propose to discharge. As discussed above, EPA received several hundred comments on the 2006 proposed rule related to how a CAFO operator would decide whether to seek permit coverage under a revised rule that requires CAFOs that discharge or propose to discharge to apply for a permit or submit a Notice of Intent for coverage under a general permit. Several commenters were particularly concerned with the consequences for an unpermitted CAFO that has an ''accidental discharge'' because they understood EPA's proposal to mean that a CAFO that does not apply for a permit and subsequently has a discharge of pollutants to waters of the U.S. would be liable for two violations, one associated with the discharge itself and another violation for failing to apply for a permit for authority to discharge. In response to these comments, in the 2008 supplemental proposal, EPA requested public comment on an option that would allow a CAFO that determines, based on an objective assessment, that it does not discharge or propose to discharge to certify to the permitting authority that it is designed, constructed, operated, and maintained not to discharge. In the unlikely event that a properly certified CAFO discharges (which would constitute a violation of section 301(a) of the CWA), the CAFO would not be liable for failing to apply for a permit prior to the discharge in accordance with the permit application requirements of 40 CFR 122.23(d)(1) and (f).

EPA received many comments on the proposed voluntary certification option. Commenters were divided, with some generally supportive and others generally opposed to the concept of a voluntary certification option for unpermitted CAFOs. Those in favor stated that certification would assist CAFOs that do not discharge or propose to discharge by providing a structured process for CAFOs to notify the permitting authority that they are not required to seek permit coverage. Some commenters opposed to certification believe the Agency's record supports a regulatory presumption that all CAFOs discharge, and, therefore, the no discharge certification process is a further departure from the decision of the *Waterkeeper* court. The majority of State permitting authorities commenting on the 2008 supplemental proposal were opposed to the certification option, as proposed.

In this final rule, EPA has addressed both the decision from the *Waterkeeper* court that CAFOs with only a potential to discharge are not subject to NPDES permitting requirements and the concerns expressed by commenters that some CAFOs may be uncertain as to whether they discharge or propose to discharge. In the NPDES program, the first step is for a point source to decide whether it needs to seek permit coverage. Generally, the question of whether a point source needs permit coverage is easily answered; indeed other point sources are typically designed to discharge to waters of the U.S. After careful consideration of the comments and in light of the unique characteristics of CAFOs among point sources, EPA has concluded that providing a voluntary option for unpermitted CAFOs to certify to the Director that the CAFO does not discharge or propose to discharge based on an objective assessment of the CAFO's design, construction, operation, and maintenance is reasonable and appropriate for CAFOs. However, in response to comments received on the proposed certification option, EPA is clarifying several aspects of the process, eligibility requirements, and effect of certification as discussed below. The Agency is also making several changes to the proposed option to ensure that certification will be properly implemented.

Under this final rule, and as proposed in the 2008 supplemental proposal, a CAFO operator may certify that the CAFO does not discharge or propose to discharge by signing and submitting a certification statement to the Director. The objective assessment necessary for the CAFO to qualify for certification takes into account the CAFO's production area design and construction and its operating and maintenance procedures and practices as described in its nutrient management plan (NMP) in accordance with the eligibility criteria, described in detail below. The certification option established by this rule does not change the requirement that CAFOs that propose to discharge must seek permit coverage when they propose to discharge pursuant to § 122.23(f). It does, however, provide a structured process for CAFOs that wish to certify to establish by objective means that they do not discharge or propose to discharge. EPA believes that such a structured process is helpful to CAFOs as they decide whether to seek permit coverage. A CAFO's no discharge certification is not subject to review by the permitting authority in order for it to become effective and the permitting authority is not required to make the certification available to the public for comment because the certification is not a permit application for which review is required under section 402 of the CWA. EPA wishes to emphasize that submission of a no discharge certification is voluntary and the process for obtaining a certification has been developed with that underlying principle in mind.

As explained in detail above, under § 122.23(d)(1) a CAFO that does not discharge or propose to discharge is not required to apply for an NPDES permit. A certification in accordance with this final rule documents the CAFO operator's basis for making an informed decision not to seek permit coverage because the CAFO does not discharge or propose to discharge. A CAFO that certifies in accordance with the requirements of this final rule, discussed in detail below, is properly certified so long as the CAFO maintains its eligibility. EPA believes that providing a properly certified CAFO assurance that it is not required by § 122.23(d)(1) to seek permit coverage is reasonable and justified. The threshold question regarding which CAFOs are required to seek permit coverage—whether the CAFO discharges or proposes to discharge—is the same for all CAFOs. A CAFO that does not discharge or propose to discharge can choose to certify or not. Certification in accordance with the requirements of 40 CFR 122.23(i) requires a CAFO owner or operator to undertake and document a rigorous analysis of the operation's structure and design, and to be committed to operation and maintenance protocols designed to ensure no discharge, discussed in detail below.

EPA is adding subsection (j) 40 CFR 122.23 to clarify the effect of certification. As provided in new paragraph (j)(1), a CAFO certified in accordance with § 122.23(i) is presumed not to propose to discharge. A CAFO that is ''certified in accordance with

§ 122.23(i)'' has submitted a complete certification that is in effect pursuant to 40 CFR 122.23(i)(4). In the unlikely event that such a CAFO does discharge, it will not be in violation of the requirement that CAFOs that propose to discharge seek permit coverage pursuant to § 122.23(d)(1) and (f), with respect to that discharge, provided the CAFO maintained its certification by continuing to be designed, constructed, operated, and maintained in accordance with the eligibility criteria in 40 CFR 122.23(i)(2). This is because meeting the eligibility criteria at the time of the discharge establishes that the CAFO did not propose to discharge. If a certified CAFO does discharge, and the Director believes that the CAFO's certification was invalid at the time of the discharge (i.e., not in accordance with the eligibility criteria in § 122.23(i)(2)), the presumption means that, in any enforcement action alleging failure to seek permit coverage prior to the discharge, the burden is on the Director to establish that the CAFO ''proposed to discharge'' prior to the discharge. EPA notes that any unpermitted discharge from a properly certified CAFO is still a violation of CWA section 301(a) and terminates the certification pursuant to § 122.23(i)(4). Moreover, if subsequent to the discharge event the CAFO is designed, constructed, operated, or maintained such that a discharge will occur, it must seek permit coverage under § 122.23(d)(1) and (f). For additional discussion of past discharges from unpermitted CAFOs see section III.C.3(a) of this preamble.

To further clarify the effect of voluntary certification, EPA is also including in the final rule a provision specifically related to uncertified CAFOs. As provided in 40 CFR 122.23(j)(2) of this final rule, in any enforcement proceeding for failure to seek permit coverage under § 122.23(d)(1) or (f) that is associated with a discharge from an unpermitted CAFO that has not submitted certification documentation as provided in 40 CFR 122.23(i)(3) or 40 CFR 122.23(i)(6)(iv), the CAFO would have the burden to establish that it did not propose to discharge prior to the discharge. Also, a CAFO that had submitted a certification more than five years prior to the discharge (and not recertified within the past five years) or that had withdrawn its certification pursuant to 40 CFR 122.23(i)(5) prior to the discharge would also have the burden to establish that it did not propose to discharge. EPA's intent is to clarify that when an unpermitted CAFO discharges and the permitting authority does not have a current, signed certification from that CAFO, it is the CAFO's responsibility to show that it was not required to have applied for permit coverage (*i.e.*, did not propose to discharge) prior to the discharge. Section 122.23(j)(2) provides that the CAFO can satisfy this burden by establishing that at the time of the discharge the CAFO's design, construction, operation, and maintenance were all in accordance with the certification eligibility criteria of § 122.23(i)(2).

Unlike the 2003 rule that required all CAFOs to seek permit coverage in order to operate unless they obtained a determination of ''no potential to discharge,'' the certification provision is entirely voluntary. The requirement for a CAFO to apply for a permit is triggered if a CAFO discharges or proposes to discharge, regardless of whether it has certified or not. Any CAFO operator's decision as to whether to seek permit coverage should be made based on an objective assessment of the CAFO's design, construction, operation, and maintenance, in contrast to the 2003 rule, which required the operator either to seek permit coverage or prove to the satisfaction of the Director that the CAFO had no potential to discharge. Therefore, under § 122.23(d)(1) and (i), the operator must evaluate based on such an objective assessment whether it discharges or proposes to discharge. If it does it must seek and obtain permit coverage; if it does not it may operate without a permit and decide either (1) to certify under the provisions at § 122.23(i); or (2) to operate without a permit and without certifying. The purpose of certification is to provide a voluntary mechanism for the CAFO to establish in advance that it does not discharge or propose to discharge. As previously discussed, a CAFO that operates without a permit must be designed, constructed, operated, and maintained such that no discharge will occur, because any discharge (other than agricultural stormwater) is prohibited from unpermitted CAFOs pursuant to CWA section 301(a), while permitted CAFOs are allowed to discharge under specified conditions and may also have defenses for upset and bypass. NPDES permit coverage reduces CAFO operator risk and provides certainty to CAFO operators regarding activities and actions that are necessary to comply with the CWA. In contrast, certified CAFOs are not allowed to discharge under any conditions (other than discharges of agricultural stormwater), and are liable for any unpermitted discharge pursuant to CWA 301(a), but they will not additionally be held liable for a violation of the duty to apply, provided their certification is valid and still in effect at the time of discharge. EPA strongly recommends that all CAFOs that have any doubt about their ability to operate under all circumstances without discharging seek to obtain NPDES permit coverage, and believes it is in their interest to do so. However, in accordance with the *Waterkeeper* decision, EPA is requiring CAFOs to seek permit coverage only if they discharge or propose to discharge.

The final rule provisions for certification eligibility and submission, and conditions for a valid certification are discussed in detail below.

(i) Certification Eligibility Criteria

EPA is establishing specific eligibility criteria for CAFO certification at 40 CFR 122.23(i)(2). Meeting these criteria establishes that the CAFO does not ''discharge or propose to discharge'' for purposes of 40 CFR 122.23(d)(1), for as long as the certification is valid. Eligibility for certification means meeting the criteria described below at the time certification is established and continuing to meet the eligibility criteria throughout the period of certification as new information or situations arise. The three criteria are as follows: (1) An objective evaluation which shows that the CAFO's production area is designed, constructed, operated, and maintained so as not to discharge, (2) development and implementation of an NMP to ensure no discharge (other than agricultural stormwater discharges) that, at a minimum, addresses the elements set forth in 40 CFR 122.42(e)(1) and 40 CFR 412.37(c), including operation and maintenance practices for the production area and land application areas under the control of the CAFO, and (3) maintenance of the documentation required for certification either on site, at a nearby office, or where it can be made readily available to the permitting authority upon request. A statement that describes the basis for the CAFO's certification that it satisfies these eligibility criteria must be submitted to the Director, but there is no requirement for permitting authority review in order for the certification to be valid.

The first two criteria concern the existing physical and operational conditions at the CAFO. In addition, meeting these criteria includes making proper accommodations during the certification period to address changes to the operation. For example, if an increase in animals will cause the CAFO to exceed the existing storage capacity for precipitation, manure and process

wastewater required for no discharge, in order to remain certified, the CAFO must remedy the storage capacity problem prior to bringing the additional animals to the operation. Operation and maintenance practices may need to be modified to accommodate changes to the CAFO. For example, a reduction in fields available for land application would trigger the need to reevaluate the adequacy of manure storage and handling protocols. The third eligibility criterion requires a certified CAFO to maintain records needed to support the basis for the certification throughout the duration of the certification, such as monitoring and inspection records, records of maintenance and repairs, and land application records, including updated documentation to match current conditions and circumstances at the CAFO. Certified CAFOs, like any other permitted or unpermitted CAFO, may be asked to send information to the permitting authority that is relevant to implementation of the CWA, or inspected by EPA or authorized State inspectors. During an inspection the certified CAFO could be required to produce the documentation showing that it meets the eligibility criteria, including that the CAFO has been and is being operated and maintained in accordance with an NMP that has been updated as necessary.

Commenters offered numerous perspectives on the proposed eligibility criteria. Some commenters asserted that the proposed criteria were too extensive, stringent, and complex, and therefore would make it unlikely that self-certifying CAFOs could accurately demonstrate their eligibility. These commenters indicated that, as proposed, the eligibility criteria would be expensive to implement and, thus, would serve as a disincentive for a CAFO to choose to certify. In response to these comments, EPA emphasizes that certification is voluntary, and CAFOs may choose not to certify. As noted above, EPA believes that it is generally in an operator's best interest to obtain permit coverage. However, EPA has provided the certification option for CAFOs that choose not to seek permit coverage but would like to establish up front that they do not discharge or propose to discharge. The final rule contains stringent eligibility criteria because in light of the CWA prohibition against unpermitted discharges, the eligibility criteria for certification must establish that the CAFO does not discharge or propose to discharge. Only CAFOs that establish eligibility and meet all of the certification provisions in 40 CFR 122.23(i)(2)–(3) will receive the benefit of certification, which is that a validly certified CAFO that discharges will not be in violation of the requirement to apply for a permit pursuant to § 122.23(d)(1) and 40 CFR 122.23(f). As EPA is clarifying in 40 CFR 122.23(j), without a certification, an unpermitted CAFO that discharges has the burden of establishing that it did not propose to discharge in an enforcement action arising from a discharge from the CAFO.

In contrast, other commenters indicated that the proposed criteria do not ensure that a certified CAFO will not discharge and, therefore, additional requirements and procedures should be imposed for certification eligibility. In response to these comments, the certification eligibility criteria in this final rule have been modified from the 2008 supplemental proposal in order to clarify what EPA expects of a certified CAFO. The final rule clarifies that the CAFO's NMP must include any operation and maintenance practices that are established by the technical evaluation of production area open storage structures as necessary to ensure no discharge. Also, EPA reminds unpermitted CAFOs considering certification that many site-specific factors, such as location and the facility's discharge history, must be taken into account when demonstrating certification eligibility in accordance with this final rule. A CAFO in close proximity to waters of the U.S. or a conduit to waters of the U.S. may need to take additional protective measures for design, construction, operation and maintenance in order to be able to demonstrate that it will not discharge. A CAFO operator who intends to establish eligibility for certification should be mindful that, as stated above in the discussion of revised § 122.23(d)(1), a CAFO that has discharged in the past would generally be expected to discharge in the future, and therefore be expected to obtain a permit, unless it has modified the design, construction, operation or maintenance in such a way as to prevent any discharges from occurring.

The first eligibility criterion for valid certification covers the design, construction, operation, and maintenance of the CAFO's production area. As proposed, 40 CFR 122.23(i)(2)(i) of this final rule requires the CAFO to demonstrate that the CAFO's production area is designed, constructed, operated, and maintained so as not to discharge. Due to the variations in production area design based on the type of containment system used at the operation, EPA proposed and is finalizing today a rule with two parts for the first eligibility criterion: the first for open manure storage structures and the second for any part of the production area not considered to be open containment.

Consistent with the 2008 supplemental proposal, under the final rule, any CAFO with an open manure storage structure seeking to certify that it does not discharge or propose to discharge is required to perform a technical evaluation under 40 CFR 122.23(i)(2)(i)(A). To demonstrate that the CAFO meets the production area requirement for certification, this evaluation must be conducted in accordance with the elements of the technical evaluation required for open storage new source swine, poultry and veal calf operations seeking to demonstrate no discharge under 40 CFR 412.46(a)(1)(i)–(viii), as revised by this action. EPA clarifies that, although this provision references the new source performance standard (NSPS) for swine, poultry and veal calf operations, this eligibility criterion applies to any unpermitted CAFO with open manure storage seeking to certify that it does not discharge or propose to discharge, not just new sources in the swine, poultry and veal calf sectors with open storage.

Elsewhere in this final rule, EPA is revising the provisions at 40 CFR 412.46(a)(1) to allow such new sources with open containment to meet the no discharge requirement for their NPDES permit using best management practices based in part on a rigorous site-specific technical evaluation that includes use of the most recent versions of the Animal Waste Management (AWM) software, or equivalent software, and the Soil Plant Air Water (SPAW) Hydrology Tool, or an equivalent model. For a discussion of the technical evaluation and the AWM and SPAW modeling tools, see section III.F of this preamble.

Several commenters expressed the need for evaluation criteria specific to beef cattle feedlots, based on their belief that reliance on swine, poultry, and veal calf new source provisions is inappropriate for all animal sectors. As described in more detail in Section III.F of this preamble, AWM software is a planning and design tool for animal feeding operations that can be used to estimate the production of manure, bedding, and process water and determine the size of storage facilities necessary to meet no discharge. AWM (CCE version 2.3.0) currently provides manure characteristics for eight animal types with the ability to modify these characteristics and add animal types as necessary. The field and pond hydrologic analyses conducted with the SPAW model are not specific to any animal species. Therefore beef and dairy

operators can use the AWM and SPAW tools to establish the appropriate design, construction, operation and maintenance of their facility to meet the no discharge requirement of certification.

EPA also received comments seeking clarification regarding how the technical evaluation for new source swine, poultry and veal calf operations can apply to existing facilities given that EPA stated in the preamble to the 2003 CAFO rule that the no discharge performance standard was not economically achievable for existing facilities. While EPA has determined that the no discharge performance standard was not appropriate to require for existing facilities on a national basis (*see* 68 FR 7218), EPA acknowledges that there are existing CAFOs that could meet the standard. Existing CAFOs that feel it is not economically achievable to meet a no-discharge standard always have the option of applying for a permit.

In order to meet the second part of the first eligibility criterion, the final rule requires, in 40 CFR 122.23(i)(2)(i)(B), that any certifying CAFO must demonstrate that all of its production area, as defined at 40 CFR 122.23(b)(8), not just open containment structures, is designed, constructed, operated, and maintained such that there will be no discharge of manure, litter, process wastewater, or raw materials, such as feed, to surface waters. For a CAFO without open containment, this provision requires a demonstration of no discharge from the entire production area. For a CAFO that has an open containment structure, this provision requires a demonstration that the remainder of the production area (other than the open containment structure subject to the demonstration in § 122.23(i)(2)(i)(A)), also will not discharge. Because of the special risk of discharge from open manure storage structures, greater specificity is provided regarding the elements of the demonstration in § 122.23(i)(2)(i)(A); however, the demonstration in § 122.23(i)(2)(i)(B) must be technically sound and must be adequate to demonstrate that the production area is designed, constructed, operated, and maintained for no discharge. This demonstration must be based on an evaluation of site-specific characteristics, including, among others, the amount of manure generated during the storage period, the size of the storage structure, control measures to ensure diversion of clean water, and seasonal restrictions on land application. The preamble to the 2003 rule provides additional information regarding production area design for total containment and closed manure storage systems, such as lagoon covers, underhouse pit storage systems, and stockpile storage sheds. *See* 68 FR 7176, 7219–20. Some CAFOs may have a combination of open manure storage structures and covered structures, while others will house all animals and store all manure, feed and by-products under cover. In either case, all parts of the production area must be included in the demonstrations required under § 122.23(i)(2)(i)(A) and (B).

In addition, as proposed under 40 CFR 122.23(i)(2)(i)(C), this final rule requires any certified unpermitted CAFO to implement the measures set forth in 40 CFR 412.37(a) and (b) for the production area. These additional measures pertain to operation and maintenance and include provisions for visual inspections, depth markers for all open surface liquid impoundments, corrective action, mortality handling and recordkeeping. This final rule also requires these measures for permitted new swine, poultry and veal calf operations to meet a no discharge standard. Since both these permitted new source operations and unpermitted certified CAFOs need to ensure no discharge from the production area under the permit and certification requirements, respectively, it is appropriate to rely, in part, on those provisions to establish eligibility criteria for no discharge certification. The documents that are necessary to satisfy the first eligibility criterion, which addresses the CAFO's design, construction, operation, and maintenance of the entire production area, include design documentation and all recordkeeping and operation and maintenance planning necessary to address the elements of § 122.23(i)(2)(i), which includes the measures set forth in § 412.37(a) and (b).

In the preamble to the 2008 supplemental proposal, EPA requested comment on whether a recordkeeping checklist for use by certified CAFOs would be a useful tool. EPA suggested the possibility of making such a checklist available to all CAFO operators. Commenters generally supported the concept of a recordkeeping checklist that could be used by certified CAFOs, since the checklist could be used to document ''expectations for risk management.'' Commenters added that the checklist should be developed in concert with the States. EPA plans to work with States to develop a checklist and consider whether State-specific checklists would also be appropriate.

The second eligibility criterion requires the CAFO to have developed and be implementing an NMP that addresses, at a minimum, the elements set forth in § 122.42(e)(1) and 40 CFR 412.37(c), and all site-specific operation and maintenance practices necessary to ensure that the CAFO will not discharge. The NMP must include provisions regarding nutrient management in the production area as well as in all land application areas under the control of the CAFO where the CAFO will land-apply manure. Because operation and maintenance practices and procedures are critical to discharge prevention, implementation of an NMP is an essential component of any CAFO's efforts to ensure that it will not discharge from its production or land application areas. Furthermore, in order for any certified CAFO that land applies to ensure that the only discharges from the land application areas are non-point source agricultural stormwater discharges, the CAFO would, at a minimum, need to land apply in accordance with practices that ensure appropriate agricultural utilization of nutrients, including conservation practices and agronomic rates of application. For detailed discussion of unpermitted CAFOs and the agricultural stormwater exemption, see section III.B of this preamble.

EPA received comments indicating that the final rule should establish a link between a facility's open storage structure design and the land application practices outlined in a CAFO's NMP. In the 2008 supplemental proposal, EPA intended that the CAFO's NMP would reflect any operation and maintenance practices related to and assumed in the technical evaluation performed for open containment structures. To clarify this intent, 40 CFR 122.23(i)(2)(ii)(B) of this final rule states that the operation and maintenance practices required to be part of the NMP must include ''any practices or conditions established by a technical evaluation pursuant to paragraph (i)(2)(i)(A),'' the provision applicable to CAFOs with open containment. For example, an existing facility may develop an NMP and then use AWM and the SPAW model to evaluate the adequacy of the designed storage facility and overall water budgets for the operation, respectively, which will rely upon inputs from the CAFO's NMP such as the number and type of animals, soil profiles and planned crop rotations. In such a scenario, the CAFO may learn from the technical evaluation that more frequent lagoon drawdowns are necessary in order to achieve no discharge. To be eligible for certification under the final rule, the CAFO's NMP

would then need to be revised to include the adjusted operation and maintenance practices resulting from the technical evaluation. It is these changed operation and maintenance practices that EPA is referring to in the § 122.23(i)(2)(ii)(B) requirement for the NMP to address ''any practices or conditions established by'' the technical evaluation required for CAFOs with open containment structures under the first eligibility criteria.

Commenters requested that EPA define what criteria can be used to meet the NMP eligibility requirement (*e.g.*, whether a comprehensive nutrient management plan (CNMP) would suffice). As EPA stated in the 2008 supplemental proposal, a CAFO may rely upon a CNMP [2] for purposes of certification eligibility, so long as the minimum NMP requirements of § 122.42(e)(1) and § 412.37(c) are met by the CAFO's plan, including all necessary operation and maintenance protocols.[3]

As discussed below, 40 CFR 122.23(i)(4) requires the certified CAFO to at all times be designed, constructed, operated, and maintained such that it meets the eligibility criteria to establish that the operation does not discharge or propose to discharge. Thus, to maintain a valid certification, a certified CAFO must update its NMP if any of the design specifications, practices, or other NMP provisions change over time. For example, if a certified CAFO operator decides to land-apply manure on a field that is not included in the NMP, the CAFO will need to calculate rates of application in accordance with the protocols for land application consistent with 40 CFR 122.42(e)(1)(viii) and revise the NMP to include the new field and the corresponding application rates and any other land application practices for the field in accordance with the protocols. Furthermore, since the eligibility criteria require the certified CAFO to implement the ''up-to-date'' NMP, the CAFO would then need to land apply in accordance with the application rates and other practices incorporated into the NMP for that field.

In the 2008 supplemental proposal, EPA stated that it would encourage CAFOs seeking certification to consult with qualified third-party professionals, but did not propose to require such consultation. Some commenters supported EPA's position, while others believe that a third-party validation of the certification by an NRCS-certified technical service provider and professional engineer should be a required element of the eligibility criteria. Commenters expressed concerns that many CAFOs do not have the requisite knowledge to make technically sound determinations regarding how to meet the eligibility criteria for certification. EPA continues to believe that it is appropriate that the third-party consultation be recommended but not required because certification is voluntary and it is the CAFO owner or operator who must certify to the operation's eligibility. Because a CAFO's certification will not be approved by the permitting authority, it is up to the CAFO operator to be certain that the certification is valid in order to benefit from the presumption that it does not propose to discharge. Therefore, EPA recommends consultation with a qualified third-party. As stated in the preamble to the 2008 supplemental proposal, any professional consulted by the CAFO should have the requisite training, experience and expertise to conduct and/or substantively review the required analyses, and to advise the owner or operator as to whether the CAFO is, in fact, designed, constructed, operated, and maintained such that it will not discharge.

The third eligibility criterion for certification established by this final rule, 40 CFR 122.23(i)(2)(iii), requires that the CAFO maintain the documentation required by the first two criteria ''either on site or at a nearby office, or otherwise make such documentation readily available to the Director or Regional Administrator upon request.'' The 2008 supplemental proposal included a regulatory requirement that the NMP and other documentation of eligibility be maintained by the CAFO ''on site.'' Many commenters expressed the need for the final rule to include regulatory language allowing all documentation of the certification eligibility criteria to be held on-site or made readily available upon request. These commenters were primarily concerned that a requirement to maintain the documentation on site would be unreasonably burdensome on facilities that have multiple production sites with one central office. EPA agrees that the documentation necessary to demonstrate certification eligibility, including the CAFO's site-specific NMP, should be maintained either on site or at a nearby office, or otherwise made readily available to the permitting authority upon request. The final rule established today includes this revision to the proposed language, which is also consistent with the provision established today applicable to the agricultural stormwater discharge exemption for unpermitted CAFOs, discussed in section III.B of this preamble. EPA recommends that operators maintain the necessary documentation on-site to ensure proper implementation of all operation and maintenance procedures.

(ii) Submitting the Certification

Under the certification option promulgated by this action, a CAFO seeking to certify that it does not discharge or propose to discharge is required to submit the certification to the permitting authority. Under 40 CFR 122.23(i)(3), the submission to the Director must include: (1) The CAFO owner or operator's name, address and phone number; (2) information regarding the CAFO's location, including latitude and longitude; (3) a description of the basis for the CAFO's certification that it satisfies the eligibility requirements of 40 CFR 122.23(i)(2); (4) the certification statement set forth in 40 CFR 122.23(i)(3)(iv); and (5) an official signature that meets the signatory requirements of 40 CFR 122.22.

The signed certification makes the CAFO legally responsible for its representations to the Director regarding the design, construction, operation, and maintenance of the CAFO. As EPA noted in the preamble to the 2008 supplemental proposal, the language regarding legal liability for making a false statement under the certification option is consistent with language in 40 CFR 122.26(g) which applies to facilities seeking to obtain a ''no exposure'' exclusion from the requirement for an industrial stormwater discharge permit. EPA clarifies that under the applicable signatory requirements in § 122.22, signing the certification signifies that the signer is certifying that the certification was prepared under his/her direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted and that based on the responsible official's inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the

[2] Technical Guidance for Developing Comprehensive Nutrient Management Plans, USDA Natural Resources Conservation Service (2003), available at *http://policy.nrcs.usda.gov/viewerFS.aspx?id=3073.*

[3] It is common for an operation to have one or more operation and maintenance plans in order to properly implement a number of NRCS conservation practice standards simultaneously. Also, to the extent that the necessary operation and maintenance requirements to implement any provision of the NMP are not included in the NMP itself, those requirements need to be implemented and included in an operation and maintenance plan to be maintained on site or at a nearby location.

information, the information submitted is, to the best of their knowledge and belief, true, accurate and complete.

This final rule makes no changes to the existing regulations concerning how CAFOs may make Confidential Business Information (CBI) claims with respect to information they must submit to the permitting authority and how those claims will be evaluated. A facility may make a claim of confidentiality under the existing regulations at 40 CFR part 2, subpart B.

The third item the Agency is requiring for submission to the Director, as listed above, is a statement describing the basis for the CAFO's certification that it is designed, constructed, operated, and maintained in accordance with the certification eligibility criteria. EPA's expectation for what this description should include is unchanged from the 2008 supplemental proposal. In the preamble to the 2008 supplemental proposal, EPA requested public comment on whether the scope and type of information included in the description of eligibility submitted to the Director should include: (1) The type and number of animals; (2) the type and capacity of manure and wastewater storage and/or containment; (3) storm size used as the basis for containment design; (4) whether the CAFO consulted with a professional engineer or technical service provider (TSP); (5) identification of the documents maintained on site in accordance with the eligibility criteria; and (6) any technical standards, tools (*e.g.* , RUSLE and Phosphorus Index) and formulas used to calculate application rates of manure, litter, and process wastewater.

Commenters expressed differing viewpoints as to what documentation must be provided to the Director for the no discharge certification. Some commenters felt that the 2008 supplemental proposal would have required the submission of too much information, and that CAFOs should only be required to submit a list of the documents created to establish a facility's eligibility. Some of these stated that submission of any facility design or operation specifics is superfluous given that there is no review by the permitting authority. In contrast, other commenters believed that the extent of documentation to be submitted to the Director was insufficient to establish that a facility is designed, operated, and maintained in a way to ensure that it is not discharging. Specifically, these commenters desired that submissions include all documents associated with meeting the eligibility criteria for certification.

After consideration of these comments, EPA believes that the list of information presented in the preamble to the supplemental proposal balances the need of the Director to be informed of critical aspects of the certified CAFO's operation with the fact that the certification is not subject to review by the Director in order to become effective. It is reasonable that the description of the CAFO's basis for certification be submitted as part of the certification, including the type of information listed above, as proposed in the supplemental proposal. EPA also recognizes that depending on site-specific conditions at a particular facility, certain information may not be necessary (*e.g.* , an operation with no land application areas would not need to provide information about application rates of manure, litter, and process wastewater). Furthermore, if the Director is concerned that a CAFO that discharges or proposes to discharge has submitted a certification, the Director has the authority to request additional information from the CAFO, as discussed below.

The authority given to the permitting authority under section 308 of the CWA to conduct inspections at operations is not affected by this rule. Section 308 authorizes, among other things, EPA to require owners or operators of point sources to establish records, conduct monitoring activities and inspections, and make reports, to enable the permitting authority to determine whether there is any violation of any prohibition, or any requirement established under section 308, 402, or 504 of the CWA. Therefore, any CAFO, whether it is certified, permitted, or neither, may be subject to an information gathering request or inspection, at the Director's discretion and for any of the reasons provided by section 308 of the CWA. 33 U.S.C. 1318.

Under this final rule, 40 CFR 122.23(i)(4), a ''certification that meets the requirements of paragraphs (i)(2) and (i)(3) * * * shall become effective on the date it is submitted, unless the Director establishes an effective date of up to 30 days after the date of submission.'' A certification is effective if the CAFO meets the eligibility criteria in § 122.23(i)(2) and submits the signed certification statement and other required information in accordance with § 122.23(i)(3). This rule also requires the use of certified mail or an equivalent method of documentation for identifying the date of submission, consistent with the supplemental proposal, in order to notify the Director that the CAFO has chosen to self-certify.

EPA notes that under the final provision, the Director may, but is not required to, establish that certifications will become effective after a specified number of days, not to exceed 30 days, following submission of the certification if the Director deems such action appropriate, as discussed below. Regardless of whether the permitting authority chooses to establish an effective date in accordance with § 122.23(i)(4), a certification becomes effective (either on the date it is submitted or on the date established by the Director) without acceptance or approval by the permitting authority. A decision by the permitting authority to delay the effective date would allow the permitting authority to become aware of the CAFO's certification prior to it going into effect. A delayed effective date of up to 30 days could provide the opportunity for the permitting authority and the CAFO to have a focused exchange of information before the certification becomes effective. For example, as a result of such an exchange the CAFO may choose to consider making revisions to its certification to be assured it has submitted a certification that meets all the requirements of § 122.23(i)(2) and (3). Also, such an exchange could provide an opportunity for the CAFO to obtain additional information about maintaining a valid certification after it goes into effect. The permitting authority can also request information from an unpermitted CAFO, as provided in section 308 of the CWA, and provide feedback to the CAFO operator if the Director believes that the CAFO has not met the certification requirements.

EPA emphasizes that the final rule does not require Director review of the certification. Therefore, if, for example, the permitting authority establishes that certifications in that State will become effective 30 days after submission, a certification from a CAFO that has met the eligibility and submission requirements in § 122.23(i)(2)–(3) will go into effect on day 30 regardless of any activities that take place during the 30-day period, so long as the CAFO maintains eligibility throughout that period. Similarly, because the certification is not subject to permitting authority review and approval, inaction on the part of the permitting authority at any time during or after the 30 days does not indicate that the CAFO either has or has not met the eligibility and submission requirements. An effective date that is no more than 30 days after submission provides sufficient time for the permitting authority to receive the certification and have an exchange with

the CAFO, but it does not constitute an unreasonable delay for the CAFO to obtain a valid certification. Given these underlying principles, EPA has determined that it is appropriate to allow the Director discretion to establish an effective date that is up to, but not more than, 30 days after submission.

EPA received comments concerning the submission process for no discharge certifications. Numerous commenters expressed concerns with the lack of any explicit requirement for Director review and approval of certifications. Some commenters asserted that the lack of review and public participation under the 2008 supplemental proposal violates the CWA and the *Waterkeeper* decision, and that without such review, certification provides no assurance of ''no discharge'' and creates an impermissible permitting structure based on self-regulation. Other commenters indicated that Director review of key documentation is necessary to ensure that a facility's certification meets applicable criteria. Some commenters requested that the documents necessary to meet the eligibility criteria also be subject to review by the Director and that approval of the no discharge certification be made contingent on such review.

EPA does not agree that the lack of a requirement for Director review is contrary to the CWA or the *Waterkeeper* decision. The voluntary certification option is available only to CAFOs that do not discharge or propose to discharge and, therefore, are not required to seek NPDES permit coverage. Neither the CWA nor the *Waterkeeper* decision requires a permitting authority to review no discharge certifications or to subject such information to public participation. Under the CWA, such requirements apply only to the permitting process. In addition, EPA emphasizes that certification is not a substitute for a permit. Rather, a valid certification simply allows an unpermitted CAFO that is designed, constructed, operated, and maintained not to discharge to establish and document that it does not discharge or propose to discharge, in exchange for the assurance provided by a no discharge certification that it is not subject to the regulatory requirement to seek permit coverage in 40 CFR 122.23(d)(1) and (f). It is the CAFO's choice and responsibility to establish and maintain a valid certification or lose the benefits afforded by the certification. Furthermore, as mentioned above, the final rule allows the permitting authority to establish an effective date for certification of up to 30 days after the date of submission by the CAFO. Allowing States the discretion to delay the effective date of certification addresses some comments from States expressing uncertainty about the role of the permitting authority in the certification process.

(iii) Limitations on Certification

This rule includes several limitations on certification related to the term of a certification, withdrawal of certification, and recertification after a certification becomes invalid.

Consistent with the 2008 supplemental proposal, under this final rule, a no discharge certification will expire five years after the effective date, unless the CAFO voluntarily withdraws the certification or the certification becomes invalid (*i.e.*, the CAFO has either discharged or ceases to be designed, constructed, operated, and maintained in accordance with certification eligibility criteria) during the five-year term. *See* 40 CFR 122.23(i)(4). Some commenters agreed with the proposed five-year term of certification, because the limited term of certification would ensure that the CAFO reevaluates eligibility. Other commenters contended that facilities should recertify on a more frequent basis, either annually or triennially, to ensure more frequent reevaluation of their certification. A number of commenters did not believe that a term of certification should be prescribed; several of these commenters maintained that if a facility remains in compliance with the certification criteria and does not make any significant changes in operation, the certification should remain valid indefinitely.

After considering the comments regarding the appropriate term for certification, EPA has concluded that the proposed five-year term is appropriate. At the end of this term the certification can be renewed, if desired by the CAFO. Since CAFOs commonly alter their operations over time, it is reasonable for the CAFO to periodically reevaluate and update its certification submission. In addition, renewal every five years does not create an undue burden on the CAFO or the permitting authority because CAFOs that have not had major changes in operations may be able to use much of the same documentation as prepared previously, and permitting authorities are not required to review and approve the certification. A shorter term for certification, such as one or three years, is not necessary because a properly certified CAFO needs to evaluate the facility at regular intervals as part of the inspection and recordkeeping requirements. Thus, a five-year term is reasonable.

Under 40 CFR 122.23(i)(5) a CAFO may withdraw its certification at any time by notifying the Director, by certified mail or equivalent method of documentation, that it is withdrawing its certification. The certification is effectively withdrawn on the date the notification is submitted to the Director. If a CAFO's certification becomes invalid as provided in § 122.23(i)(4), discussed below, § 122.23(i)(5) requires the CAFO operator to withdraw its certification within three days of the date on which the CAFO becomes aware that the no discharge certification is invalid. As proposed, this final rule does not require the CAFO operator to notify the Director of the reason for withdrawing the certification because certification is voluntary.

EPA received a number of comments concerning the withdrawal of certification. These comments generally focused on the need for a certified CAFO to provide more information regarding its actions leading to the withdrawal. Some commenters observed that in order to withdraw certification, CAFOs should have to submit the reasons for such withdrawal to the Director. EPA believes it is reasonable for a CAFO to be able to withdrawal its voluntary certification at any time without additional explanation. The decision to certify is voluntary, and thus, it is appropriate to allow a CAFO to decide to withdraw its certification for any reason with no further explanation. However, certain situations require the CAFO to withdraw its certification. This final rule requires that a CAFO withdraw its certification by notifying the Director in the event that the certification is no longer valid, either because of a discharge or because the CAFO ceases to meet the eligibility criteria. *See* § 122.23(i)(4) and (5). Notifying the Director that a CAFO is withdrawing its certification provides the information necessary for the Director to maintain an up-to-date record of certified CAFOs. A CAFO that fails to withdraw its certification within three days of becoming aware that the certification is invalid would be in violation of this regulatory requirement. EPA believes these provisions appropriately balance the voluntary nature of certification with the value to the Director of maintaining accurate records of the universe of certified CAFOs.

This final rule describes in § 122.23(i)(4) the situations that cause a certification to become invalid. First, in the unlikely event of a discharge from a properly certified CAFO, the

certification would cease to be valid and would no longer be in effect. Second, should a CAFO fail to continue to meet any of the eligibility criteria, the CAFO's certification would no longer be valid. Circumstances that could result in the certification becoming invalid include, for example, an increase in animals that exceeds the capacity of the production area for manure storage and handling or a loss of land application areas such that the assumptions in the NMP concerning land application would no longer be appropriate, if the CAFO's operations, NMP and certification documentation were not revised to address these changed circumstances. EPA emphasizes that failure by a certified CAFO to continue to meet the eligibility requirements in 40 CFR 122.23(i)(2) is not, in and of itself, a violation of any regulatory requirement because certification is strictly voluntary. For example, failure to implement the measures set forth in 40 CFR 412.37(a)–(b), which are required for no discharge certification eligibility under 40 CFR 122.23(i)(2)(i), is not a violation of § 412.37(a)–(b) but renders the certification invalid. However, failure to withdraw a certification that has become invalid is a violation of the requirement to do so.

As explained in the 2008 supplemental proposal, once a certification ceases to be valid, the operator cannot rely on it if a subsequent enforcement action is brought for a violation of the duty to apply for a permit that is triggered after the certification becomes invalid. In other words, once a CAFO's certification becomes invalid, the CAFO is in the same position as any other unpermitted and uncertified CAFO. After withdrawing the invalid certification, the operator may be interested in seeking to recertify that the CAFO does not discharge or propose to discharge or, if the CAFO does discharge or propose to discharge, the CAFO is required to seek permit coverage, as stated in 40 CFR 122.23(i)(5)(ii).

In the 2008 supplemental proposal, EPA proposed to allow a previously certified CAFO to recertify by revising its operations to address the deficiency that led to the invalid certification and submitting a new certification statement. Under the proposal, if the certification was rendered invalid by a discharge, in order to recertify a CAFO would have to submit to the Director the information required under 40 CFR 122.23(i)(3) and additional information describing the discharge and the steps taken by the CAFO to permanently address the cause of the discharge. As proposed, such a recertification submission, like the initial submission, would not be subject to review.

Under this final rule, if a CAFO's certification becomes invalid due to a failure to meet the eligibility criteria, as opposed to because of a discharge, and the CAFO wishes to recertify, the owner or operator would need to make the changes necessary to establish eligibility under § 122.23(i)(2). The provisions applicable to the recertification submission and effective date would be the same as for any certification. *See* § 122.23(i)(3) and (4). If the CAFO wishes to recertify after a discharge has occurred, the CAFO would need to meet the additional requirements of 40 CFR 122.23(i)(6), discussed in detail below.

Commenters expressed several viewpoints with regard to the proposed provisions for recertification after a discharge. Some commenters supported the recertification process as proposed. These commenters generally recognized that CAFOs may encounter unusual circumstances that result in a discharge and that it is appropriate to allow for recertification once the conditions that resulted in the discharge are addressed. Certain other commenters argued that subsequent to a discharge any recertification should be reviewed by the permitting authority and open to public comment to ensure a rigorous assessment of whether recertification is appropriate. Some commenters asserted that recertification after a discharge should not be allowed at all under the CAFO regulations. Furthermore, some commenters believe it would be inequitable for unpermitted CAFOs to discharge and recertify if other discharging operators are required to seek permit coverage. Several of these commenters asserted that any CAFO that discharges should be required to obtain an NPDES permit.

EPA emphasizes that it will be highly unlikely for a CAFO that is designed, constructed, operated, and maintained in accordance with the eligibility criteria in § 122.23(i)(2) to discharge. Furthermore, EPA maintains its position, stated in the preamble to the 2008 supplemental proposal, that the Agency generally considers a recurring discharge as evidence that a CAFO is not eligible for certification or recertification and needs to seek permit coverage. However, given the possibility of a discharge from a properly certified CAFO, albeit remote, EPA believes it is necessary for the final rule to include provisions specifically for a CAFO seeking to recertify after a discharge.

In response to comments, EPA has established specific criteria in this final rule that limit a CAFO's ability to recertify after a discharge to those situations where (1) the certification was valid at the time of the discharge, meaning the CAFO continued to be designed, constructed, operated, and maintained for no discharge in accordance with all provisions of the NMP and any operation and maintenance plans included in the certification; (2) the operator has made any necessary changes to the CAFO's design, construction, operation and maintenance to permanently address the cause of the discharge and ensure that no discharge from this cause occurs in the future; and (3) the CAFO has not previously recertified after a discharge from the same cause. The first criterion limits the availability of recertification after a discharge by excluding CAFOs that discharge after allowing the certification to lapse. EPA believes that a CAFO that certifies under penalty of law that it is and will continue to be designed, constructed, operated, and maintained so as not to discharge, that then fails to satisfy this criterion and subsequently discharges, should not be given the opportunity to once again obtain the benefits of a no discharge certification. The second criterion ensures that a CAFO will only recertify after it has carefully evaluated the cause of the discharge and taken whatever action is necessary to ensure that a discharge from the same cause will not occur again. Finally, the third criterion constrains a CAFO from engaging in a cycle of recertifying after multiple discharges from the same cause. The voluntary certification option established in this rule is not intended to be a mechanism for discharging CAFOs to avoid obtaining permit coverage, a concern cited by several commenters who opposed the certification option. On the contrary, EPA is providing the certification option to allow CAFOs that meet the eligibility criteria to establish up front that they do not discharge or propose to discharge.

The final rule provides that the CAFO's recertification will not become effective until 30 days from the date of submission. The operator is also required to submit the following information for review by the Director: A description of the discharge, including the date, time, cause, duration and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge. This 30-day review period provides an opportunity for the Director to consider the circumstances leading to the discharge, any actions taken by the CAFO to permanently address the cause of the discharge, and any other relevant

compliance information regarding the facility. EPA encourages State permitting authorities to take advantage of this opportunity to consider such information. As is true for the general certification process described above, when a CAFO seeks to recertify after a discharge, the Director has the authority to collect additional information from the CAFO, assess whether the criteria in this rule are satisfied, and provide feedback to the CAFO if he/she believes that the CAFO has not met the recertification criteria. For example, the 30-day review period will allow the Director to assess whether or not the CAFO has previously recertified after a discharge from the same cause. However, as with the initial certification, the Director is not required to take any action for a certification to become effective at the end of the 30-day review period and inaction does not indicate that the CAFO has met the recertification criteria. After considering public comments on the 2008 supplemental proposal regarding recertification after a discharge, EPA has determined that this 30-day review period is reasonable and prudent to allow the Director to review situations where a previously certified CAFO has had an actual discharge.

Overall, the limited conditions under which a CAFO can recertify following a discharge, the description of the discharge submitted to the permitting authority, and the required 30-day review period prior to the recertification becoming effective, provide an opportunity for the Director to determine whether the CAFO discharges or proposes to discharge and must seek coverage under an NPDES permit. For example, as provided in 40 CFR 122.28(b)(2)(vi), the Director has the authority to direct that the CAFO be covered under a general permit if one is available.

EPA believes the final rule provisions covering recertification after a discharge provide an appropriate balance of the flexibility offered by voluntary certification and the need for scrutiny of previously certified CAFOs that have discharged. Additionally, under the final rule, any previously certified CAFO that discharges or proposes to discharge is subject to the permit application requirements of 40 CFR 122.23(d)(1) and (f), and therefore must apply when the CAFO proposes to discharge. A CAFO that has permanently addressed the cause of the discharge such that the CAFO does not ''discharge or propose to discharge'' is not required to seek permit coverage regardless of whether it recertifies. For further discussion of the effects of a past discharge on a CAFO's permit application requirements, see the duty to apply discussion at section III.A.3(a) of this preamble.

B. Agricultural Stormwater Exemption

1. Provisions in the 2003 CAFO Rule

The discharge of manure, litter, or process wastewater from a land application area under the control of a CAFO is a discharge subject to NPDES permitting requirements, unless the discharge is an ''agricultural stormwater discharge,'' which is excluded from the meaning of the term ''point source'' under 33 U.S.C. 1362(14). In the 2003 CAFO rule, EPA differentiated between discharges from land application areas under the control of the CAFO that are point source discharges and those that are ''agricultural stormwater discharges'' exempt from NPDES permit requirements.

In the 2003 rule, EPA promulgated a definition of agricultural stormwater for CAFO land application areas that referenced 40 CFR 122.42(e)(1)(vi)–(ix). The referenced regulatory text includes requirements for edge-of-field buffers or equivalent measures, testing of manure and soil, land application at site-specific agronomic rates, and recordkeeping. While not explicitly included in the definition of agricultural stormwater, technical standards established by the Director, in accordance with effluent limitations guidelines (ELGs) in 40 CFR 412.4(c) applied to Large CAFOs' nutrient management plans for land application. These more specific limitations implemented the general requirements at § 122.42(e)(1)(vi)–(ix), and because the 2003 rule required all CAFOs with a potential to discharge to obtain permits, virtually all Large CAFOs were required to comply with them.

2. Summary of the Second Circuit Court Decision

The Second Circuit upheld EPA's definition of agricultural stormwater established by the 2003 rule. In addition, ELG requirements of 40 CFR 412.4(c) concerning land application for Large CAFOs were not challenged. The court did not, however, specifically address the applicability of these requirements to unpermitted Large CAFOs seeking to claim the agricultural stormwater exemption for land application discharges, in light of its vacature of the duty to apply for all Large CAFOs. *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486 (2d Cir. 2005).

3. This Final Rule

As a result of the regulatory revisions being made by this action in response to the *Waterkeeper* decision, which held that EPA does not have authority to require facilities with solely a potential to discharge to obtain permits, Large CAFOs are not required to seek NPDES permit coverage unless they discharge or propose to discharge. For those Large CAFOs that obtain NPDES permit coverage, provisions for determining whether precipitation-related discharges from their land application areas qualify for the agricultural stormwater exemption were promulgated in the 2003 rule and codified at 40 CFR 122.23(e). As explained above, under the 2003 rule, Large CAFO NPDES permits must require the development and implementation of nutrient management plans for land application in accordance with the ELG in 40 CFR part 412. Nutrient management plans for land application in accordance with 40 CFR 412.4(c) include application rates and other practices for manure, litter, and process wastewater developed in compliance with technical standards, as well as other requirements. These land application requirements are then incorporated into the permit pursuant to 40 CFR 122.42(e)(1). Therefore, for permitted Large CAFOs that land apply manure, litter, or process wastewater, ''site-specific nutrient management practices * * * as specified in § 122.42(e)(1)(iv)–(ix)'' in § 122.23(e) include land application rates and other practices determined in compliance with technical standards.

The 2003 rule at § 122.23(e) specifies how Large CAFOs that have NPDES permits qualify for the agricultural stormwater exemption. Specifically, under the existing regulation, the permit must set forth the site-specific nutrient management practices that ensure appropriate agricultural utilization of nutrients as specified in 40 CFR 122.42(e)(1)(vi)–(ix) in order for precipitation-related discharges from such land application areas to be exempt agricultural stormwater discharges. EPA did not propose to amend the existing agricultural stormwater discharge exemption provision in § 122.23(e), nor has EPA otherwise reopened the provision.

In this rule, however, EPA is adopting a new regulatory provision clarifying what constitutes agricultural stormwater for unpermitted Large CAFOs. The *Waterkeeper* court held that Large CAFOs with a mere potential to discharge were not required to obtain permits. Because the existing regulations could be construed as

applying only to Large CAFOs with NPDES permits, EPA explained in the preamble to the 2006 proposed rule that a CAFO with no discharges other than precipitation-related discharges from its land application areas would not be considered to ''discharge'' if it applies manure, litter, or process wastewater to land under its control in accordance with nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater as specified § 122.42(e)(1)(vi)–(ix). The Agency also expressly stated in its 2006 proposal that, for unpermitted Large CAFOs to qualify for the statutory agricultural stormwater exemption, manure, litter, and process wastewater must be applied in compliance with technical standards, noting that technical standards are, in significant part, intended to ensure the appropriate agricultural utilization of the nutrients contained in the manure, litter, or process wastewater. 71 FR 37,750. EPA also requested comment on whether to codify language to require that unpermitted Large CAFOs that land apply manure, litter, or process wastewater must comply with the technical standards established by the Director in order to qualify for the agricultural stormwater discharge exemption for precipitation-related discharges from land application areas under their control.

In the preamble to the 2006 proposed rule, EPA also discussed the reference to the documentation requirement found in 40 CFR 122.42(e)(1)(ix). EPA noted that documentation is a crucial element for determining whether a CAFO is land applying manure, litter, or process wastewater in a manner that ensures the appropriate agricultural utilization of nutrients such that any runoff from land application areas under a CAFO's control consists only of exempt agricultural stormwater discharges. 71 FR 37,750.

The provision established in this rule at § 122.23(e)(1) clarifies that in order for unpermitted Large CAFOs to have their precipitation-related discharges qualify as agricultural stormwater discharges, they must land apply manure, litter, or process wastewater ''in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in § 122.42(e)(1)(vi)–(ix).'' This interpretation of the statutory agricultural stormwater exemption was upheld by the Second Circuit in the *Waterkeeper* decision. In addition, the new provision established at 40 CFR 122.23(e)(2) requires unpermitted Large CAFOs to have nutrient management planning documentation on site, at a nearby office, or otherwise make it readily available upon request to support assertions that the only discharges from their land application areas are precipitation-related discharges that qualify for the agricultural stormwater exemption. As noted above, EPA has not reopened any aspect of the 2003 CAFO rule applicable to permitted CAFOs. Rather, the new provisions clarify how the agricultural stormwater exemption applies to Large CAFOs that do not have an NPDES permit. This is not a new requirement for unpermitted CAFOs, but rather a clarification of EPA's existing interpretation of the agricultural stormwater exemption in CWA section 502(14).

EPA is modifying the interpretation articulated by EPA in the 2006 proposal of how technical standards apply to unpermitted CAFOs seeking to have their precipitation-related discharges from land application areas qualify for the agricultural stormwater exemption. Under this final rule, a precipitation-related discharge from land application areas under the control of an unpermitted Large CAFO constitutes an agricultural stormwater discharge where the CAFO has land applied manure, litter, or process wastewater in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in § 122.42(e)(1)(vi)–(ix). Nutrient management practices and rates of application satisfy the requirements of 40 CFR122.42(e)(1)(viii) when they are in accordance with technical standards established by the Director. The form, source, amount, timing, and method of application of nutrients are essential components of the protocols for land application of manure, litter, or process wastewater specified in § 122.42(e)(1)(viii). As explained below, CAFOs that land apply using nutrient management practices based on standards other than the technical standards established by the Director would have to demonstrate that such practices ensure the appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater as specified in § 122.42(e)(1)(viii).

Technical standards established by the Director provide an objective basis for determining when precipitation-related discharges from land application areas are exempt from NPDES permit requirements. Such technical standards are reviewed and determined by the permitting authority to provide a technically sound framework for establishing rates of application that generally would satisfy the requirements of § 122.42(e)(1)(viii). Such technical standards specify the method or methods for determining whether land application rates are to be based on nitrogen or phosphorus, or whether existing nutrient loads in the soil preclude land application, and also address the form, source, amount, timing, and method of application on each field to achieve realistic production goals while minimizing movement of nitrogen and phosphorus to surface waters. Thus, technical standards provide an objective and reliable framework for developing rates of application and other practices for each field, taking into account a range of critical factors. For purposes of § 122.42(e)(1)(viii), rates of application developed using technical standards must encompass and include all of the factors discussed above.

Because the technical standards established by the Director represent the permitting authority's judgment as to practices that ensure appropriate agricultural utilization of nutrients, as discussed above, they provide a sound basis for determining and documenting that a precipitation-related discharge from land application areas will meet the requirements of § 122.42(e)(1)(viii). If a facility chooses to take a different approach and follow other standards, the facility would need to demonstrate not only that its practices accorded with such alternative standards, but also that the standards provided a reliable, technically valid basis for meeting the terms of § 122.42(e)(1)(viii). While technical standards established by the Director would have undergone careful review by the Director to determine their validity for purposes of applying the agricultural stormwater exemption, there may not have been a comparable review in place for alternative standards. Thus, the CAFO may have to demonstrate both the appropriateness of alternative standards and that its practices conformed to them in order for its discharges to qualify for the agricultural stormwater exemption.

EPA recognizes that there may be other standards that are developed besides those established by the Director that may also provide guidance to producers regarding appropriate agronomic nutrient management practices and the development of rates of application. Under this rule, owners and operators of unpermitted CAFOs are not precluded from relying on such other standards. However, while other

standards may provide useful guidance, in the absence of being reviewed and established by the Director, it is the CAFO's responsibility to demonstrate that such alternative standards do, in fact, ''ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater,'' as required by § 122.42(e)(1)(viii).

In determining whether a CAFO's site-specific nutrient management practices do ''ensure appropriate utilization of the nutrients'' in the land applied manure, litter, or process wastewater, EPA will evaluate an unpermitted CAFO's nutrient management practices using the technical standards established by the Director as a baseline and expects the same of authorized States. As discussed, EPA considers the technical standards established by the Director to be a sound measure for determining whether the form, source, amount, timing, and method of application meet the requirements of § 122.42(e)(1)(viii).

As noted above, in order for an unpermitted Large CAFO without an NPDES permit to establish that the only precipitation-related discharges from its land application areas are agricultural stormwater discharges, it must have documentation showing that its nutrient management practices are in accordance with § 122.23(e)(1). This is not a new concept, as one of the requirements specified in § 122.23(e) promulgated in the 2003 rule is to maintain documentation as required by 40 CFR 122.42(e)(1)(ix). Section 122.42(e)(1)(ix) requires specific records to be maintained to document the implementation of the elements of § 122.42(e)(1)(vi)–(viii). As stated in the preamble to the 2006 proposed rule, the necessary documentation includes both the nutrient management planning documents and the additional recordkeeping that demonstrates the actual nutrient management practices that have been implemented. *See* 71 FR 37,750. Such documentation is essential for determining whether precipitation-related discharges from a land application area are agricultural stormwater discharges or point source discharges.

It is reasonable and appropriate that unpermitted CAFOs be required to demonstrate that their nutrient management practices, including rates of application, meet the regulatory definition of agricultural stormwater promulgated in 2003, and to do so means maintaining documentation of their nutrient management practices. Without adequate documentation, it would be difficult, if not impossible, to know whether such precipitation-related discharges are unpermitted point source discharges or are exempt agricultural stormwater discharges.

Because unpermitted CAFOs are not subject to the place and time recordkeeping requirements of § 122.42(e)(2), EPA is in this rule requiring that unpermitted CAFOs that land apply manure, litter, or process wastewater maintain on site or at a nearby office, or otherwise make available upon request documentation showing that precipitation-related discharges from their land application areas are agricultural stormwater discharges. The requirement for documentation is referenced in § 122.42(e)(1)(ix), and is authorized by section 308(a) of the CWA. Section 308(a) gives EPA authority to require any point source to establish and maintain records for determining whether ''any person is in violation'' of a prohibition, including the section 301(a) prohibition against point source discharges unless authorized under an NPDES permit. Section 308(a)(4) authorizes EPA to require records, reports, and other information when required to carry out provisions of the CWA, including sections 301 and 402. The inclusion of this requirement for unpermitted CAFOs to keep the documentation on site or to make it readily available upon request is for the purpose of giving States and EPA a basis for determining whether the CAFO's land application discharges are within the statutory exemption for agricultural stormwater. EPA expects that, in general, CAFOs will maintain their nutrient management plans for land application on site because they set out the protocols that must be followed in practice. Documentation of the site-specific nutrient management practices that is not produceable to an inspector at the time of a permitting authority's inspection would not be considered to be made ''readily available'' and, further, would raise questions as to whether it is actually being properly used by the CAFO.

EPA received comments in support of its position that a facility need not have an NPDES permit in order for precipitation-related discharges from land application areas to be deemed agricultural stormwater discharges. Other commenters disagreed for a variety of reasons. First, commenters asserted that the proposal was inconsistent with the approach EPA established in the 2003 rule. Second, some commenters argued that allowing the CAFO owner or operator to determine whether its nutrient management practices meet the requirements of the rule creates a similar ''impermissible self-regulatory permitting scheme'' as that struck down by the Second Circuit Court of Appeals in the *Waterkeeper* decision. They argued that these nutrient management practices must be subject to review and consideration by the permitting authority and the public.

EPA does not agree that only CAFOs with NPDES permits should be allowed to claim that discharges from their land application areas are agricultural stormwater discharges. The question is whether a precipitation-related discharge from a CAFO's land application area is exempt from permitting requirements as an ''agricultural stormwater discharge'' or whether it is a point source discharge that requires a permit. As the Court of Appeals for the Second Circuit reiterated in the *Waterkeeper* decision, ''a discharge from an area under the control of a CAFO can be considered either a CAFO discharge that is subject to regulation or an agricultural stormwater discharge that is not subject to regulation.'' 399 F.3d 486 at 508 (citing *Concerned Area Residents for the Environment* v. *Southview Farms*, 34 F.3d 114 (2d Cir. 1994)). The assessment of whether a discharge is exempt as agricultural stormwater or a point source discharge subject to permitting requirements is not part of the permitting process, but rather precedes it.

For the same reason, EPA does not agree that a self-regulatory regime is created by allowing unpermitted CAFOs to claim that precipitation-related discharges from their land application areas are exempt if they land apply manure, litter, or process wastewater in accordance with appropriate nutrient management practices as required by § 122.23(e). In the context of the agricultural stormwater discharge exemption, nutrient management practices are not effluent limitations, which can only be established and enforced through NPDES permits. NPDES permits are authorized by section 402 of the CWA for the ''discharge of any pollutant'' under the terms of that section, including compliance with effluent limitations. Section 502(12) defines ''discharge of a pollutant'' and ''discharge of pollutants'' as ''the addition of any pollutant * * * from any point source.'' The definition of ''point source'' in section 502(14) expressly excludes ''agricultural stormwater discharges and return flows from irrigated agriculture.'' Therefore, NPDES permits are necessary for point source discharges, but not for agricultural stormwater discharges. Consequently, the site-specific nutrient

management practices that a CAFO must implement in order for precipitation-related discharges from areas under the CAFO's control to be considered agricultural stormwater discharges are not effluent limitations. Rather, they are preconditions for determining whether the agricultural stormwater exemption applies for discharges from land application areas under the CAFO's control. Because the site-specific nutrient management practices are not effluent limitations, they are not subject to the requirements in section 402 for public review and comment. However, persons who believe that an unpermitted Large CAFO's nutrient management practices are not sufficient to qualify for the agricultural stormwater exemption are free to bring citizen suits under CWA section 505 alleging that the CAFO is discharging without a permit.

The *Waterkeeper* court upheld EPA's construction of the definition of point source as articulated in § 122.23(e) as reasonable. In this rule, EPA has not in any way reopened this provision of the 2003 rule. Nor is EPA changing any aspect of § 122.23(e) with respect to what is required in order for precipitation-related discharges from land under the control of a CAFO where manure, litter, or process wastewater is applied to qualify as ''agricultural stormwater discharges.'' The approach taken in this rule is simply to describe how a CAFO without an NPDES permit may come within the scope of the existing language in § 122.23(e).

C. Nutrient Management Plans

1. Provisions in the 2003 CAFO Rule

Under the 2003 CAFO rule, an NPDES permit issued to a CAFO must include a requirement for the permittee to develop and implement a nutrient management plan (NMP). At a minimum, the NMP is required to include best management practices (BMPs) and procedures necessary to achieve effluent limitations and standards, to the extent applicable, including the minimum requirements of 40 CFR 122.42(e)(1)(i)–(ix). Effluent limitations for Large CAFOs are set forth in the effluent limitations guidelines (ELG) in 40 CFR part 412, which contain specific NMP requirements applicable to both the production area and the land application areas under the control of Large CAFOs in the cattle, swine, poultry, and veal calf subcategories. For small and medium CAFOs, and other operations not subject to 40 CFR part 412 requirements, effluent limitations, including those applicable to land application areas, are established on the basis of the best professional judgment (BPJ) of the permitting authority pursuant to CWA section 402(a)(1)(B) and defined in 40 CFR 125.3(c)(2).

2. Summary of the Second Circuit Court Decision

The U.S. Court of Appeals for the Second Circuit found that the terms of an NMP are effluent limitations and vacated the 2003 CAFO rule insofar as the rule allowed permitting authorities to issue NPDES permits to CAFOs without (1) reviewing the terms of the NMPs; (2) providing for adequate public participation in the development, revision, and enforcement of the nutrient management plans; and (3) including the terms of the NMP in the permit. *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486, 498–504 (2d Cir. 2005). The decision did not affect the substantive requirements for NMPs established at 40 CFR 122.42(e)(1) and 412.4(c) in the 2003 CAFO rule.

3. This Final Rule

To address the court's decision, EPA is revising the 2003 CAFO rule and other provisions of the NPDES regulations to provide for:

- Receipt and review of the NMP by the permitting authority prior to issuing an individual permit or granting coverage under a general permit;
- Adequate public participation prior to issuing an individual permit or granting coverage under a general permit;
- Incorporation of the terms of the NMP into the NPDES permit; and
- The process to address changes to the NMP once permit coverage is granted, for both individual and general permits.

The individual permitting process already allows for review of NMPs by the permitting authority and the public, and incorporation of the terms of the NMP into the individual permit consistent with the CWA. This is not the case, however, for general permits. Given that fact, in promulgating these revisions, EPA is devoting particular attention to the process for issuance of general permits. Furthermore, EPA expects most CAFOs to be covered by general permits.

To effectuate these changes, EPA is revising 40 CFR 122.21, 122.23, 122.28, 122.42, 122.62, and 122.63. As mentioned above, EPA extended the deadlines set in the 2003 CAFO rule for NMP development and implementation, as well as for newly defined CAFOs to seek permit coverage in separate rulemakings. 71 FR 6978 (February 10, 2006); 72 FR 40,245 (July 24, 2007).

The preamble discussion that follows is divided into eight sections to separately address each of the following issues:

- CAFO permit application or notice of intent requirements;
- Procedures for permitting authority review and public participation prior to permit coverage;
- Identification of terms of the NMP;
- Process for incorporating terms of the NMP into a general permit;
- Changes to a permitted CAFO's NMP;
- Process for review of changes to an NMP and for modifying terms of the NMP incorporated into the permit;
- Annual reporting requirements; and
- EPA nutrient management plan template.

(a) CAFO Permit Application or Notice of Intent Requirements for Nutrient Management Plans

EPA is revising 40 CFR 122.21(i)(1)(x) to require the applicant to submit, as part of its permit application or notice of intent (NOI) to be covered by a general permit, an NMP developed in accordance with the provisions of 40 CFR 122.42(e) and, for Large CAFOs subject to subparts C or D of 40 CFR part 412, the requirements of 40 CFR 412.4(c), as applicable. Although this change is codified in the section of the regulations applicable to individual permit applications (40 CFR 122.21(i)(1)), it also applies to NOIs, because the regulation governing NOIs (40 CFR 122.28(b)(2)(ii)) cross-references the requirements of § 122.21(i)(1). EPA revised Application Form 2B to reflect these changes, and the revised form is provided as Appendix A of this notice.

The final rule adopts the approach that EPA proposed. This approach is consistent with the *Waterkeeper* decision, which left undisturbed the substantive requirements for nutrient management plans in the 2003 CAFO rule but held that such plans must be submitted to the permitting authority for public review prior to permit coverage. These revisions do not change the required contents of the NMP, but add a requirement for CAFOs to submit their NMP as part of their application for an individual permit or NOI to be covered under a general permit. This differs from the requirements of the 2003 rule, which required that NMPs be submitted only at the request of the Director.

In the 2006 proposed rule, EPA proposed requiring an applicant to submit, as part of its permit application or NOI, an NMP developed in accordance with the provisions of 40 CFR 122.42(e)(1) and if applicable, 40

CFR 412.4(c)(1). The permitting authority would then make the NMP available for review prior to issuing an individual permit or providing coverage under an NPDES general permit.

Many commenters supported the proposed requirements to submit NMPs with the initial permit application or NOI. One State commented that a CAFO should be allowed to submit the NOI information in batches so that the permitting authority could begin processing the NOI before a facility has completed its NMP to prevent delays in the review and approval process. The commenter added that authorization to discharge under the permit could not be granted until the permitting authority had received, processed, and reviewed all required NOI and NMP information according to the regulations.

Nothing in this rule prohibits permitting authorities from accepting permit application information in batches, provided that the application information and submission process satisfies all applicable requirements. For example, existing NPDES regulations address, in relevant part, the effective date of an application and the processing of a permit. *See* 40 CFR 124.3. EPA recognizes that early communication between the owner or operator of a CAFO and the permitting authority can help facilitate the permitting process, and EPA encourages CAFOs to work closely with their permitting authorities.

EPA received some comments suggesting that the Director issue a general permit that defines the terms of the NMP and details BMP options for a range of possible conditions combined with a requirement for the CAFO to submit a summarized NMP. The summarized NMP would include site-specific facility information needed to apply the management approach prescribed by the general permit. One State recommended that, for general permits, CAFOs submit a ''universal NMP'' with their NOI that contains decision-making tools used by producers to determine application rates, dates, and methods rather than including site-specific information in the permit. This would allow for the public to comment on a generic ''universal NMP'' and would reduce the number of comments that the State regulatory agencies would need to review and consider if comments were provided for each individual NMP submitted for a general permit.

EPA weighed these comments in deciding what information needed to be submitted to the Director for review to comport with the CWA requirements cited by the *Waterkeeper* Court. The final rule requires any CAFO seeking coverage under a general permit to submit with the NOI an NMP that meets the requirements of § 122.42(e) and applicable effluent limitations and standards. EPA did not identify any other specific regulatory alternatives that substantially reduce burden while still providing for meaningful permitting authority and public review of site-specific NMPs prior to permit coverage. Thus, EPA is promulgating an approach that is consistent with the *Waterkeeper* decision and the NPDES CAFO permit program requirements, while continuing to allow for the use of general permits for CAFOs.

EPA also received a comment that production and land application areas should have separate permitting requirements such that a facility that does not land apply would not need to submit an NMP that addresses its land application area. EPA is not revising the NMP requirements established in the 2003 CAFO rule that added land application requirements for permitted CAFOs. Under the NPDES regulations established in the 2003 rule, permits issued to CAFOs apply to the entire facility, including land application areas. Furthermore, the NMP provisions address discharges that can originate either from production areas or from land application areas. Thus, NMPs have been designed to be comprehensive documents required of all permitted CAFOs. The NMP provisions at § 122.42(e)(1) must be included in a CAFO's NMP ''to the extent applicable.'' Thus, if a facility does not land apply manure, litter, or process wastewater, the land application provisions of the regulation would not be applicable. CAFOs should note, however, that even facilities that do not land apply manure, litter, or process wastewater, but transfer all manure, litter, or process wastewater to other persons, are required by 40 CFR 122.42(e)(3) to provide the ''most current nutrient analysis'' to the recipient.

Although EPA is not revising the substantive requirements of paragraph (e)(1) in this rule, EPA is modifying the introductory paragraph to conform to the procedural requirements promulgated in this rule. Because this rule requires an NMP to be submitted as part of the CAFO's permit application or NOI, EPA is removing, from paragraph (e)(1), the permit condition for development of an NMP once permit coverage is granted. EPA is thus revising § 122.42(e)(1) simply to require that any individual or general NPDES permit issued to a CAFO require the implementation of an NMP that contains best management practices (BMPs) as specified in 40 CFR 122.42(e)(1)(i)–(ix) and the applicable effluent limitations and standards. Applicable effluent limitations include, for Large CAFOs, the requirements of 40 CFR part 412, and for other CAFOs BAT requirements set on a best professional judgment (BPJ) basis.

EPA notes that the definition of ''BMPs'' in the NPDES regulations (40 CFR 122.2) is very broad and includes both practices and procedures to be implemented by a permittee. For this reason, EPA is also changing the phrase in the introductory paragraph of § 122.42(e)(1) concerning the contents of an NMP from ''best management practices and procedures'' to simply reference ''best management practices'' without intending any change in the actual scope of what must be included in an NMP.

(b) Procedures for Permitting Authority Review and Public Participation Prior to Permit Coverage

This rule promulgates 40 CFR 122.23(h), which provides new general permit procedures for CAFO general permits. The provisions of § 122.23(h) supplement the general permitting requirements of 40 CFR 122.28 with specific provisions for review and incorporation of CAFO NMPs into general permits for CAFOs. These provisions implement the decision of the *Waterkeeper* courts concerning public review of NMPs and incorporation of the terms of the NMP into CAFO permits, specifically for CAFOs seeking authorization under a general permit.

After the permitting authority receives an application or an NOI from a CAFO, it is the permitting authority's responsibility to review the application or NOI to ensure that it meets the requirements of the regulations, and for general permits, the requirements of the general permit. This includes determining whether the nutrient management plan meets the requirements of 40 CFR 122.42(e)(1) and, for Large CAFOs subject to 40 CFR 412 subpart C or D, the applicable requirements of 40 CFR 412.4(c). As part of that process, the Director must review the NMP for both completeness and sufficiency, as required by the *Waterkeeper* decision. Also, because the *Waterkeeper* decision requires terms of the NMP to be incorporated as permit terms, the Director must provide for adequate public participation in the process of establishing permit terms based on each CAFO's NMP.

The general permit issuance process and the individual permitting process

differ in how a permit is developed and the means by which individual facilities obtain authorization to discharge. A general permit covers multiple facilities, and is made available to facilities seeking permit coverage after it is finalized. When the permitting authority develops a draft general permit, it must provide the public (including potential future permittees) an opportunity to review the permit, submit comments, and request a hearing. After considering comments submitted, the permitting authority then finalizes the general permit. Facilities may then submit an NOI seeking coverage under the final general permit. Typically, the permitting authority may then, without the need for further public notice and comment, either grant coverage under the general permit, require the facility to seek coverage under an individual permit, or deny permit coverage. Existing regulations establish a right for any interested person to petition the Director to require a facility authorized under a general permit to apply for an individual permit. *See* 40 CFR 122.28(b)(3).

For individual permits, the NMP will be submitted and reviewed as part of the permit application. The decision-making procedures in 40 CFR part 124 apply to the Director's review of the application, which includes the NMP. Part 124 requires review of the completeness and sufficiency of the permit application, includes an opportunity for the CAFO to modify the plan or provide additional information to the permitting authority, and requires a final decision by the Director after an opportunity for the public to comment and request a hearing.

Although a review process for data submitted by applicants, including NMPs, is already provided for in existing NPDES regulations that address issuance of individual permits, such a process has not previously been expressly available in the regulations for CAFO general permits. Following the *Waterkeeper* decision, general permits for CAFOs must include the terms of an NMP applicable to each specific CAFO authorized under the permit. Moreover, *Waterkeeper* requires that the public have an opportunity to review each CAFO-specific NMP and comment on terms of the NMP to be incorporated into the permit. Thus, a second round of public notice and comment is necessary when providing coverage for CAFOs under a general permit. To fill these gaps and address the *Waterkeeper* decision, this rule creates new provisions at § 122.23(h) that establish a process for permitting authority and public review of NMPs for CAFO general permits.

(i) Permitting Authority Review of Nutrient Management Plans

As discussed above, the *Waterkeeper* court held that NMPs must be reviewed by the permitting authority before permit coverage is issued to any CAFO. *Waterkeeper*, 399 F.3d at 498–502. The process for permitting authority review of NMPs for CAFOs seeking coverage under a general permit is established by this final rule at 40 CFR 122.23(h)(1). Section 122.23(h) requires the Director to review the NOI submitted by a CAFO owner or operator to ensure that the NOI includes the information required by 40 CFR 122.21(i)(1), including an NMP that meets the requirements of 40 CFR 122.42(e) and applicable effluent limitations and standards, including those specified in 40 CFR part 412. Section 122.23(h)(1) also provides that if, upon review, the permitting authority determines that additional information is necessary to complete the NOI or clarify, modify, or supplement previously submitted material, the Director will notify the CAFO owner or operator and request that the appropriate information be provided. When the NOI is complete, the Director must then proceed with the public notification process required by this rule and discussed below.

In the 2006 proposed rule, EPA proposed a new regulatory provision to establish permitting authority review of NMPs for general permits. This provision would require the Director to review the NMP submitted with the NOI and to take appropriate steps to ensure that the NMP meets the applicable requirements of 40 CFR 122.42(e)(1) and, for Large CAFOs, 40 CFR 412.4(c). Upon review of the NMP, the permitting authority would request from the CAFO owner or operator any additional information needed to complete the NOI or clarify, modify, or supplement the submitted material. The permitting authority would then notify the public of its receipt of a complete NOI and of the terms of the NMP proposed to be incorporated into the general permit. After allowing time for public comment and a public hearing, if needed, the permitting authority would decide whether to authorize coverage under the general permit.

Many commenters disagreed with the proposed modified general permit process that would add permitting authority review of the NMP. The primary concern was that the permitting authorities may have insufficient resources to review all NMPs, which could limit the usefulness of general permits. To address this concern, a number of commenters suggested variations on the proposed process. These suggestions are addressed in more detail below under the corresponding discussion for the respective stage of the general permitting process.

The *Waterkeeper* decision held that permitting authorities must review the permit application and the NMP to ensure that all applicable requirements have been met. The court made no distinction between individual or general permits with regard to this requirement. Because existing regulations do not provide for a review process that addresses the submission and review of NMPs for inclusion in a general permit, and given that EPA expects many CAFOs to be permitted under general permits, EPA is adopting provisions at § 122.23(h) that provide for permitting authority review of the CAFO NOI and NMP, as well as opportunity for the public to comment and request a hearing on the NOI, NMP, and the terms of the NMP to be incorporated into the permit.

The procedure for review and notice of CAFO NOIs and NMPs will impose some increased burden on permitting authorities and will add steps to the process of administering a general permit. However, EPA has worked to adapt these new requirements to a two-stage review process that comports with the *Waterkeeper* decision and the CWA and adds some flexibility to the parallel NPDES permit procedure regulations of 40 CFR part 124.

Commenters stated that EPA should establish a correlation between the timing of the application process and permit coverage. These commenters wanted the regulation to automatically authorize discharges within 60 days from the date of application/NOI submission unless the permitting authority denied permit coverage within that period, even if the public review process was incomplete. They took the view that CAFOs should not be penalized by a review process that could vary in length based on factors out of the control of the CAFO. Similarly, some commenters stated that EPA's final regulation should provide a clearly defined process with a limited length of time for permitting authority review. Suggestions for a time limit ranged from 30 to 60 days.

To provide permitting authorities flexibility to review NMPs of varying complexity, this action does not require a specific timeframe for completion of the permitting authority review process. This approach is consistent with the existing NPDES regulations in part 124 for other industries, which similarly do

not specify a timeframe for automatic authorization to discharge or for the completion of the permitting authority and public review processes.

Commenters expressed concern over the additional workload that reviewing individual NMPs would create, and suggested alternatives to reduce permitting authority workload, including: Submission of a ''universal NMP'' with permit applications for use in determining application rates, timing, and methods rather than including site-specific information in the permit; and combining a detailed, clear general permit with the submission of a summarized NMP for review.

In developing the 2006 proposed rule EPA evaluated alternative approaches for reducing operator and permitting authority workload. For example, EPA considered the use of an NMP template as a voluntary tool to facilitate completion and review of the NMP by CAFO applicants and permitting authorities, respectively. 71 FR 37,752. Such a template could serve as one of many tools available to support CAFO permitting and reduce permitting authority workloads. See preamble section III.C.3(h) for a discussion of the template. EPA also plans to develop additional tools and guidance to reduce the burden on both the CAFO operator and the permitting authority to meet the requirements of the NPDES regulations. For example, EPA is developing a training course that focuses on development and review of NMPs to comport with this final rule. EPA plans to first make the course available to State and federal permitting authorities in 2009.

Another possible approach for minimizing permitting authority resource expenditures is utilizing a third-party for NMP review. A few commenters noted that having permitting authority staff review NMPs that have already been prepared by a State-certified planner is duplicative and unnecessary. Commenters believe that, due to their extensive training, certified planners are in the best position to review and certify NMPs coupled with appropriate public agency oversight. This is one State commenter's established NMP review process. Commenters noted that, in some States, another State agency (typically the State agricultural agency) reviews and approves NMPs. A State commenter asserted that the final rule would meet the intent of the *Waterkeeper* decision if it allowed NMP review by qualified professionals meeting educational and technical training requirements as set forth by the Director. Such professionals should be properly trained and subject to a quality assurance protocol. One commenter asserted that this flexibility is imperative for effective State programs.

The permitting authority is responsible for reviewing NMPs and for ensuring that the terms of the NMP meet the applicable requirements of the NPDES process. There is no reason, however, why a State cannot obtain assistance and advice from technical experts, or tailor its review based on the development or certification of NMPs by State-certified nutrient management planners. However, it is the permitting authorities' responsibility to ensure that comments are properly addressed and the final permit terms are incorporated.

Regarding the increased workload permitting authorities may experience due to review of NMPs, EPA notes that 30 out of the 44 States that regulate CAFOs currently require NMPs to be submitted with a CAFO's request for NPDES permit application coverage. Further, 28 of these States allow for public review of these NMPs. Thus, even though EPA did not specifically require this in the 2003 CAFO rule, such a review process already exists for many State regulatory authorities.

(ii) Public Review of Nutrient Management Plans

In the *Waterkeeper* decision, the Second Circuit held that ''The CAFO rule deprives the public of the opportunity for the sort of participation that the Act guarantees because the Rule effectively shields the nutrient management plans [NMPs] from public scrutiny and comment.'' 399 F.3d at 503. This rule responds to the *Waterkeeper* decision by establishing public participation requirements that ensure adequate opportunity for public review of both a CAFO's NMP and the terms of the NMP to be incorporated into the permit prior to the CAFO obtaining authorization to discharge under the permit.

As previously discussed, procedures for public participation in the issuance of individual permits are already established in the NPDES regulations. *See* 40 CFR part 124. Because this rule requires CAFOs to submit their NMP as part of their permit application (see discussion at section III.C.3(a) of this preamble; 40 CFR 122.21 and 122.23)), the public will have access to the NMP prior to permit issuance and will also have full opportunity to comment on the adequacy of the plan and on the nutrient management terms in the draft NPDES permit developed for the specific CAFO facility. This individual permit process addresses the court's decision in this respect.

To preserve the option of general permits for CAFOs and to conform to the *Waterkeeper* decision which requires the terms of each CAFO's NMP to be incorporated into the CAFO's permit, this rule establishes new provisions, at 40 CFR 122.23(h), that require the permitting authority to allow public review of both the NMP and the terms of the NMP to be included in a general permit.

In § 122.23(h), the rule establishes new general permitting procedures for CAFOs that require permitting authorities to incorporate the terms of site-specific NMPs, which must be submitted with the NOI, into CAFO general permits when authorizing coverage under a general permit. These procedures require the Director to notify the public that the permitting authority is proposing to grant coverage for a facility under the general permit and make available for public review and comment the CAFO's NOI (including its NMP) and the draft terms of the NMP to be incorporated into the permit. The public will also have an opportunity to request a hearing on this information before the CAFO is authorized to discharge under the general permit.

After making a preliminary determination that the NOI meets the requirements of 40 CFR 122.21(i)(1) and 122.42(e), the Director has discretion as to how best to provide the requisite public notification in the general permit context. For example, public notification may be provided on the permitting authority's Web page or through other electronic means. Another alternative is to use the notice or fact sheet for the general permit to establish a procedure allowing any person to request notice by mail or electronically of the receipt of an NOI, the permitting authority's proposed action, and the terms of the NMP proposed to be incorporated into the permit. These are appropriate ways to balance the competing concerns of providing adequate notification to the public, providing flexibility to the permitting authority, and ensuring the practicality of general permits.

Under this rule, the Director also has discretion to establish an appropriate period of time for public review of the NOI and draft terms of the NMP proposed to be incorporated into the permit. Under 40 CFR 122.23(h)(1), the Director may establish by regulation or in the general permit an appropriate period of time for the public to comment and request a hearing. This differs from the specifications in 40 CFR 124.10, which sets a 30-day public notice period for proposed coverage under individual permits. Having the

Director set the time period for public review by regulation or in the general permit process will allow the public and other interested parties an opportunity to comment on the sufficiency of that time period. Factors the permitting authority might consider when establishing an appropriate time period include the number of NOIs being publicly noticed at any one time, the complexity of the material made available for public review, the expected level of public interest based on prior notices of CAFOs seeking coverage, the opportunity for the public to request an extension of the comment period for one or more facilities, and whether individuals can request and receive individual notification of CAFOs seeking authorization to discharge under the permit in a timely fashion.

As mentioned above, the Director must also provide an opportunity for the public to request a hearing. The procedures for requesting and holding a hearing on the terms of the NMP to be incorporated into the general permit are the same as those for draft individual permits, which are provided in 40 CFR 124.11 through 40 CFR 124.13. When granting permit coverage, the Director must respond to all significant comments received during the comment period as provided in 40 CFR 124.17, and if necessary, require the CAFO owner or operator to revise their NMP.

Additionally, under the procedures promulgated in § 122.23(h)(1) of this rule, if after the public notice period and the conclusion of any hearings, the Director decides to authorize discharge under the permit, the permitting authority must notify the CAFO and inform the public. Such notification is necessary to ensure that the applicant and interested individuals are aware of the Director's final decision on granting authorization to discharge under the general permit and incorporating site-specific NMP terms into the general permit. Furthermore, the provision provides notification equivalent to that required when CAFOs are issued coverage under individual permits consistent with this rule revision.

EPA is promulgating 40 CFR 122.23(h)(2), which establishes additional procedures for EPA-issued permits. Paragraph (h)(2) requires the EPA Regional Administrator to notify each person who has submitted written comments on the proposal to grant permit coverage and the draft terms of the NMP of the final permit decision. A person affected by the general permit can either challenge the general permit in court, or apply for an individual permit as authorized in 40 CFR 122.28.

The public notice process described above also includes providing notice to other affected States, as required by the CWA. Section 402(b)(3) of the CWA provides that the Administrator, in approving a State program, shall make sure the State has adequate authority to ensure notice to ''any other State the waters of which may be affected.'' Section 402(b)(5) provides that the Administrator must ensure that any State ''whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State,'' and that if those recommendations are rejected, the permitting State must notify the affected State in writing of the reasons for the rejection. The public notice provisions in this rule provide notification to affected States as well as to the public in general. Additionally, the permitting authority's response to all significant comments will include responses to comments from affected States.

This rule balances several competing concerns regarding public participation procedures for general permitting of CAFOs. First, the final rule maintains the utility of a general permit program as a resource-efficient method by which to authorize multiple CAFOs under an NPDES permit while meeting the Second Circuit's directive to ''provide for adequate public participation'' in the development of site-specific effluent limitations. *Waterkeeper*, 399 F.3d at 524. Second, the final rule provides sufficient flexibility for State permitting authorities to adopt their own procedures while ensuring that they meet the public participation requirements of the CWA. Because of the large number of CAFOs that may seek permit coverage, the Agency considers it appropriate to have procedures that allow and encourage permitting authorities to continue the use of NPDES general permits as a means for applying CWA limitations and standards to CAFOs on a timely basis. Of course, existing regulations give the Director authority to require a facility to apply for an individual permit instead of allowing coverage under a general permit (even after coverage under a general permit has been granted). The Director may thus choose not to issue a general permit for CAFOs, but instead to require all CAFOs seeking permit coverage to obtain coverage under individual permits.

The 2006 proposed rule included procedures for public review of NOIs and draft terms of the NMP substantially the same as the procedures promulgated today in § 122.23(h). EPA solicited comment on the proposal to give the Director discretion regarding the means of public notification and the length of the public notice period, and also on the possibility of fixed minimum time frames for public review. The Agency also specifically sought comment on whether the proposed public participation process achieved an appropriate balance between the competing interests of maintaining the utility of general permits for CAFOs and providing adequate public review of permit terms.

Several commenters expressed concern that public review of the NMP would eliminate the use of general permits, noting that States have limited resources for accommodating a public review process. Several commenters stated that the proposed process provided inadequate opportunity for public input. Some believed that the proposed public participation process is inconsistent with the general permitting approach and that only individual permits are appropriate for CAFOs since the terms of the NMP constitute site-specific effluent guidelines. Others felt that the public participation process needed to begin before the development of the NMP to provide an opportunity for comment on the specific best management practices (BMPs) to be included in the plan.

The procedures for public participation in this final rule preserve the availability of general permits for CAFOs. As discussed above, the changes to the CAFO general permit process made in this rule are necessary to meet the requirements of the *Waterkeeper* decision. In addition, EPA has provided flexibility where it could with regard to how a permitting authority provides public notice and makes key information available. Further, the rule provides permitting authorities with flexibility to establish an appropriate time period for public review. Finally, the rule does not change any of the existing regulations that allow a permitting authority to require an individual permit when appropriate. Overall, the final rule maintains the utility of a CAFO general permit program as a resource-efficient method for authorizing multiple CAFOs under an NPDES permit while meeting the court's directive to ''provide for adequate public participation'' in the development of site-specific effluent limitations.

One commenter stated that public access to the entire NMP will strongly compel operators to risk noncompliance by operating without authorization under a permit. Some commenters were concerned that sensitive information will be made available to the public.

EPA understands the sensitivity of some information that may be contained in a CAFO's NMP. However, public availability and permitting authority review of a CAFO's NMP is not a new practice; rather, it is one that is currently employed in many State NPDES CAFO programs. As stated above, 30 of the 44 States that permit CAFOs request that NMPs be submitted as part of their permit application process. In most of those States the permitting authority conducts a comprehensive technical review of the NMPs prior to granting authorization to discharge under the permit. These NMPs have already been publicly available in these States for some time. Moreover, most of these States provide notice to the public of the availability of these plans and seek public review, with some conducting public meetings as well. Any information submitted to the permitting authority as part of a permit application or NOI must be made available for public review and comment, unless it is confidential business information (CBI). *See* 40 CFR 122.7.

EPA disagrees with commenters who believe that the permitting process provides inadequate opportunity for public input or that such opportunity should arise earlier in the process. The final rule provides ample opportunity for the public to comment on the terms and conditions of the general permit, including for each permitted CAFO, the opportunity to comment on permit coverage and the terms of the NMP. This rule requires that the public have access to the NOI and the NMP when reviewing and commenting on BMPs and other terms of the NMP to be incorporated as enforceable conditions of the permit.

Several commenters supported permitting authority discretion on the method of providing public notice of the opportunity to comment on an NMP or request a hearing. One commenter stated that EPA should allow applications to be processed jointly so that the permitting authority could provide notice to the public of multiple NMPs at the same time. Another commenter supported web-based or other electronic notice. One commenter suggested that the general permit fact sheet be utilized to establish a procedure allowing any person to request notice by mail or electronically of the receipt of an NOI, the permitting authority's proposed action, and the terms of the NMP proposed to be incorporated into the permit. Such an approach would provide flexibility to the permitting authority and reduce the number of notices that must be published.

As stated above, this rule allows the permitting authority discretion as to how best to provide such public notification in the general permit context. For example, public notification may be provided on the permitting authority's Web page or through other electronic means. The final rule does not restrict the ability of a permitting authority to provide notice of multiple NMPs at one time provided the all applicable procedural and substantive permitting requirements are satisfied. However, notice must be adequate, and the opportunity to comment must be meaningful.

Some commenters expressed that EPA should require a minimum of 30 days for public review and that the 2006 proposed rule provided permitting authorities too much discretion. Others stated that the public participation process should be limited, with many suggesting no more than 30 days for an initial submission. In addition, commenters requested that EPA limit the circumstances under which the comment period could be extended. EPA believes that the decision as to how much time should be allowed for public participation is best decided by the Director for reasons discussed above, including that the public will have an opportunity to comment on the length of the public notice period when reviewing either the draft regulations or draft general permit.

EPA also received comments suggesting that EPA specify that each facility would be subject to only one public hearing on a draft permit; that the decision to hold a public hearing on a draft permit and NMP should be based on a finding of a significant degree of public interest and limited to issues germane to permitting; and that public review of a general permit be limited to the terms of the NMP that are incorporated into the permit. Several commenters were concerned that without some limitations, the public review process could be misused. This rule specifies that permitting authorities follow the procedures set forth in § 124.11–124.13. These protocols are well established for NPDES permits and allow the Director to weigh the relevant circumstances in addressing each of the issues raised by commenters.

State commenters were generally supportive of EPA's proposed approach and the flexibility it allows for permitting authorities in the general permit process. In particular, these commenters said that establishing timeframes for public review should be left to the permitting authority.

One State suggested that the public participation aspects of the 2006 proposed rule be limited to only new Large CAFOs and that NMP terms for previously authorized Large CAFOs be made available as part of a modified annual reporting requirement. The public participation requirements in this final rule are applicable to all CAFO NPDES permits. The *Waterkeeper* decision did not distinguish between new facilities seeking permit coverage for the first time and existing facilities seeking permit reissuance for purposes of public participation in reviewing CAFO NMPs. Such a distinction would not make sense given that the Second Circuit found that the terms of NMPs are effluent limits that must be included in the permit and presented for public review and comment. Providing the NMP terms to the public only in an annual report would not address the *Waterkeeper* requirement that the permitting authority must provide for public notice and the opportunity to comment on the NMP terms and that the NMP terms must be enforceable.

EPA regulations applicable to State NPDES programs specify that where notice and opportunity for comment must be provided, a permitting authority must respond to significant public comments (§ 124.17). Several commenters said EPA should specifically narrow what constitutes a significant comment warranting a response by the permitting authority. Their general position was that comments must have a technical or scientific basis, or address errors, omissions, or misrepresentations in order to be considered significant. Some said that comments should be limited only to issues under the purview of the CWA, and generalized grievances about the operation or location should be identified as insignificant and not warrant any response by the permitting authority. Other commenters, namely State agencies, identified the need to provide the permitting authority with flexibility for determining which comments are significant and warrant a response. They also indicated that the permitting authority will have limited resources for responding to all comments on a draft permit and NMP.

EPA intends that this final rule be consistent with existing regulatory provisions addressing public participation in the NPDES program and believes that it provides a reasonable amount of discretion and flexibility for permitting authorities to determine and respond to those comments deemed to be significant.

(c) Identification of Terms of the NMP

In the *Waterkeeper* decision, the Second Circuit held that because the terms of the NMP constitute effluent limitations, the CAFO Rule, ''by failing to require that the terms of the nutrient management plans be included in NPDES permits—violates the CWA and is otherwise arbitrary and capricious in violation of the Administrative Procedure Act.'' 399 F.3d at 502.

To respond to the *Waterkeeper* decision, the Agency is promulgating 40 CFR 122.42(e)(5) in order to specify the minimum terms of the nutrient management plan (NMP) that must be enforceable requirements of a CAFO's NPDES permit. As discussed in the preambles to both the 2006 proposed rule and 2008 supplemental proposal, EPA is not revisiting the decisions the Agency made in 2003 with respect to the contents of the nutrient management plan because the *Waterkeeper* decision did not affect these requirements. This rule requires that, based on the provisions promulgated in 2003 that define nutrient management plans (40 CFR 122.42(e)(1) and 412.4(c)), the ''terms'' of the nutrient management plan become terms and conditions of the permit, as required by the Second Circuit decision.

The *Waterkeeper* court clearly indicated that the terms of the NMP must be included in the permit and that the terms must include ''waste application rates'' developed by Large CAFOs pursuant to their NMPs. 399 F.3d at 502. Paragraph (e)(5) includes two alternative approaches for specifying terms of the NMP with respect to rates of application, which are needed to satisfy the requirement that the NMP include ''protocols to land apply manure, litter, or process wastewater * * * that ensure appropriate agricultural utilization of the nutrients.'' 40 CFR 122.42(e)(1)(viii). For Large CAFOs, use of either of these alternative approaches also satisfies the requirements set forth in 40 CFR 412.4

(i) Background

In the 2006 proposed rule and 2008 supplemental proposal, EPA discussed how the ''terms'' of a CAFO's NMP could be identified so as to address the nine minimum required elements in 40 CFR 122.42(e)(1)(i)–(ix)) and 412.4(c) (for Large CAFOs, as applicable).

The 2006 proposed rule preamble identified a number of factors that are necessary to the development of an NMP and discussed the need to allow a CAFO some flexibility in managing its operation. 71 FR 37,753–55. With respect to portions of the NMP that would be incorporated as permit terms, the Agency also proposed regulatory language for accommodating changes to the NMP that involve changes to the terms during the permit period. 71 FR 37,756.

EPA received many comments on the NMP issues highlighted in the 2006 proposed rule preamble concerning the complexity associated with nutrient management planning, particularly with respect to land application, and seeking clarification of what constitutes the terms of the NMP. In particular, commenters sought clarification for terms regarding rates of application, given the complexity of factors used to determine rates of application and the dynamics associated with such factors.

In light of these concerns, EPA in March 2008, issued a supplemental proposal that proposed what elements of the NMP would be terms of the NMP that would be required to be included as enforceable terms of a CAFO's NPDES permit. EPA received many comments on the supplemental proposal that identified the need for some further revisions to EPA's proposed approach concerning the terms of the NMP.

(ii) Terms of the NMP To Be Included in the Permit

In this final rule, EPA is promulgating 40 CFR 122.42(e)(5) to identify the minimum terms of an NMP to be included in a CAFO's NPDES permit as enforceable requirements of the permit. Paragraph (e)(5) establishes that any permit issued to a CAFO must require the CAFO to comply with the terms of the CAFO's site-specific nutrient management plan.

Paragraph (e)(5) states that the terms of the NMP ''are the information, protocols, best management practices, and other conditions'' identified in a CAFO's nutrient management plan and determined by the permitting authority to be necessary to meet the requirements of 40 CFR 122.42(e)(1). For Large CAFOs subject to the land application requirements of the effluent limitations guideline, the terms would include the best management practices necessary to meet the requirements of 40 CFR 412.4(c) in addition to the requirements of 40 CFR part 122. This requirement is thus broadly applicable to all of the measures required to be included in a CAFO's NMP. EPA believes that this clarification should address the concerns of some commenters that the proposed terms of the NMP were limited to land application requirements only.

The ''information, protocols, best management practices, and other conditions'' that constitute the terms of a CAFO's NMP include what the CAFO operator would be required to do to properly implement its NMP and determinative conditions upon which such actions are based. For example, both the structural design capacity necessary to satisfy the storage requirement of 40 CFR 122.42(e)(1)(i) and the associated operational and maintenance conditions necessary to ensure adequate storage, would be considered terms of the NMP. Likewise, the terms of the NMP would need to ensure, for example, proper management of mortalities and diversion of clean water. However, the number of animals confined would not necessarily need to be a term of the NMP because a CAFO operator would be required to properly operate and maintain the CAFO's storage facilities regardless of the number of animals or the volume of manure, litter, or process wastewater generated.

Some commenters asserted that the entire NMP should be included in or expressly referenced by the permit and that all the elements of a CAFO's NMP must be included in a CAFO's NPDES permit so as to ensure that the permit requires the CAFO to comply with every discharge reduction or prevention measure in its NMP. These commenters disagreed with EPA's interpretation of *Waterkeeper* and felt that the 2006 proposed rule put forth a more narrow meaning of the word ''terms'' than intended by the court. They also felt that the proposed rule provided the permitting authority too much discretion for determining what constitutes the ''terms'' of the NMP.

The Agency agrees that the enforceable terms of the NMP must be clear so as to provide notice, both to the operator and to the public, about what is enforceable and to ensure compliance with the discharge reduction and prevention measures in the NMP. However, EPA does not agree that the all of the information in the NMP constitutes enforceable terms. By establishing the information, protocols, best management practices, and other conditions or activities necessary to meet the requirements of 40 CFR part 122 and part 412, this rule ensures that effluent limitations in the permit will be fully implemented, consistent with the NPDES regulations, the effluent guidelines, and the *Waterkeeper* decision. In addition, this approach preserves NMPs as comprehensive management tools used to guide a wide range of practices regarding nutrient production, storage, and use. Regarding the degree of discretion afforded to the Director, the requirements of this final

rule concerning terms of the NMP and the opportunity for public review of the full NMP together with the draft terms of the NMP to be incorporated into the permit provides a check on the exercise of that discretion.

Moreover, whether the NMP has been properly developed, whether the information in the NMP is accurate, and whether calculations are correct and consistent with applicable requirements are issues which are properly addressed when the NMP is reviewed by the Director and by the public. This is analogous to the types of calculations and data submitted in a permit application and found in the fact sheet that accompanies a draft NPDES permit for other types of permitted point sources.

Other commenters observed that NMPs do not fit well in this regulatory context due to their design and the way in which they have been used by CAFO operators. Rather, they asserted that NMPs are developed to guide management decisions regarding nutrients and, by necessity, must remain flexible to address the many conditions that affect nutrient generation and management.

The final rule allows for the incorporation of the key NMP terms in a regulatory context without overburdening the permitting process or completely recasting the NMP itself. As discussed above, the terms of the NMP include whatever is contained in the NMP that is necessary to ensure compliance with § 122.42(e)(1) and, for Large CAFOs, 40 CFR 412.4. Additional content of the NMP that is beyond the scope of compliance with those regulatory requirements would not be a term of the NMP.

Some commenters on the 2006 proposed rule urged EPA to provide greater clarity, guidance, and certainty in the final rule on the meaning and significance of the distinction between the NMP and the ''terms'' of the NMP. As proposed in the 2008 supplemental proposal, the final rule establishes more specific requirements for terms of the NMP applicable to CAFOs that land apply manure, litter, and process wastewater than were included in the proposed rule. For such CAFOs, paragraph (e)(5) includes as terms the fields available for land application, field-specific rates of application, and timing limitations for land application.

As stated above, with respect to land application, the terms of every NMP must include the fields the CAFO plans to use for land application. The site-specific elements of the NMP can only be properly represented in the NMP by the inclusion of field-specific information that must be made available for review by the Director and for public review in determining, for example, the appropriate conservation practices and rates of application to be included in the plan and, ultimately, in the permit. Compliance with the permit during the period of coverage would require any new fields (*i.e.*, fields not addressed specifically in the terms of the permit) to first be added to the NMP and the permit, in accordance with the requirements of 40 CFR 122.42(e)(6), discussed below, before they could be used by the CAFO for land application. Similarly, as discussed in greater detail below, field-specific, crop-specific application rates would be terms of the NMP, as would certain factors needed to determine the rates. However, background information that is fixed and unchangeable, such as actual historic yields used in the development of an NMP, while important for determining rates of application, would not need to be terms of the NMP. Such information is also relevant and important for public review of the draft permit, in order to ascertain that the terms relating to rates of application are correct and enforceable. In other words, this is an example of information necessary for the development of the NMP, but is not relevant for compliance or enforcement purposes.

Finally, the terms of the NMP must include any timing limitations in the NMP that would make fields unavailable for land application at certain times or under certain conditions.[4] Insofar as the NMP includes such limitations, the resulting limitations are terms of the NMP and thus enforceable.

(iii) Rates of Application

40 CFR 122.42(e)(1)(viii) requires the nutrient management plan to include ''protocols to land apply manure, litter, or process wastewater in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.'' As EPA noted in the 2006 proposed rule, the *Waterkeeper* court focused on rates of application as perhaps the most important term of the NMP, in particular the provisions of the effluent limitations guidelines in 40 CFR 412.4(c), and emphasized their site-specific nature. 71 FR 37,753. In the 2008 supplemental notice, the Agency proposed regulatory requirements to ensure that legally-enforceable field- and crop-specific application rates are included in the permit as part of the protocols for land application required to be in the NMP under § 122.42(e)(1)(viii).

This rule promulgates two alternative approaches for expressing the terms of the nutrient management plan with respect to rates of application. 40 CFR 122.42(2)(5)(i)–(ii). Each approach provides a means by which a CAFO may articulate in its NMP annual maximum rates of application of manure, litter, and process wastewater by field and crop for each year of permit coverage and identify the minimum required terms of the NMP specific to that approach. One approach expresses field-specific maximum rates of application in terms of the amount of nitrogen and phosphorus from manure, litter, and process wastewater allowed to be applied. This is called the ''linear approach.'' The other approach expresses the field-specific rate of application as a narrative rate prescribing how to calculate the amount of manure, litter, and process wastewater allowed to be applied. This is called the ''narrative rate approach.''

Each of the approaches requires the CAFO operator to develop an NMP that projects for each field and for each year of permit coverage the crops to be planted, crop rotation, crop nutrient needs, expected yield, amount of nitrogen and phosphorus to be land applied, and projected amounts of manure, litter, and process wastewater to be applied. However, each approach is different in identifying which of these projections would be required to be ''terms of the NMP.'' In neither approach is the projected amount of manure, litter, and process wastewater to be land applied a term of the permit because these projected amounts must be adjusted at least once a year.

Several commenters suggested that the NMP and permitting authority review of the NMP should focus on how agronomic rates are developed in the NMP rather than the specific rate determined in the NMP, based on the difficulty of developing accurate application rates for a five-year term and because agency review of specific application rates for each field would be too burdensome. As discussed above and in the 2006 proposed rule, the *Waterkeeper* court focused on rates of application as perhaps the most important term of the NMP and emphasized their site-specific nature.

[4] There are two types of ''timing'' referred to in this rule regarding land application. One type relates specifically to rates of application, *i.e.*, the availability of nutrients for crop uptake based on the timing (and method) of application. There are also timing limitations, such as restrictions on applying under certain conditions, such as on saturated or frozen fields, or at certain times of the year. The latter types of timing restrictions are the subject of this paragraph.

To comply with the decision of the *Waterkeeper* court with regard to the terms of the NMP and to allow flexibility both for CAFO operators to develop NMPs in a manner appropriate for a particular operation as well as for States to develop regionally-appropriate program requirements that meet the needs of a particular agency, EPA in this final rule is providing two alternatives for expressing rates and determining the associated terms of the NMP.

Rates of application are field-specific and are designed to ensure that crops receive sufficient nutrients to meet yield goals, while minimizing the amounts of nutrients that could be transported from the field. The discussion that follows summarizes the basic process for establishing rates of application in an NMP, in light of the comments received in the 2008 supplemental proposal, as an introduction to the specific discussion of the two approaches promulgated in this final rule.

To develop appropriate land application rates for each field where land application will occur, CAFOs must identify the crops to be planted and the planned crop rotations, or other uses, and the nitrogen and phosphorus needs of these crops or other uses. The NMP also must identify the realistic yield expected from the crop or crops planted in the field, in order to calculate the proper amount of nutrients to apply. A crop's nutrient needs are generally determined in accordance with the nutrient recommendations for a given crop (or other planting, such as forage or pasture) and the per acre realistic yield goal for that crop. The State land grant university typically provides these values or the formulas for calculating these values. The realistic yield goal can also be based on historic field-specific yield data.

Because a CAFO operator could plant more than one crop on a field in a given year, the plant available amount of nitrogen and phosphorus needs to be calculated with reference to the nutrient needs of all the crops to be planted on such field in a given year in order to be accurate. This includes accounting for other field uses, such as pasture and cover crops.

A properly developed NMP must also evaluate the condition of the fields to be used for land application. A field-specific assessment based on soil test nutrient levels and other factors required by the technical standards established by the Director provides information needed to determine whether land application of manure is appropriate for a site. The capacity of the field for manure, litter, or process wastewater application generally depends on the capacity of the soil to retain phosphorus. The phrase ''outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field,'' as used in this rule, reflects the terminology typically associated with the use of the phosphorus index, which is one of three field-specific risk assessment methods discussed in NRCS conservation practice standard 590. However, in this final rule, EPA is using this phrase to reflect the results of whichever method is required by the technical standards established by the Director, including the soil test phosphorus method and the phosphorus threshold method.

One commenter suggested that, for some States, it may be appropriate to require that the field-specific assessment of the potential for nitrogen and phosphorus transport be conducted on an annual basis. EPA recognizes that some States require, for example, use of a phosphorus index that factors into the calculated risk rating the amount of manure applied to the field in the previous year. EPA agrees that, for these States, it would be appropriate to require recalculation of the phosphorus index on an annual basis and anticipates that such States would include the appropriate requirements in technical standards, permits, or other requirements applicable to CAFOs. Furthermore, EPA encourages CAFO operators to reevaluate field-specific assessments of the potential for nitrogen and phosphorus transport as frequently as necessary to ensure minimization of nutrient transport from each field.

Ultimately, the purpose of the field-specific assessment of the potential for nitrogen and phosphorus transport is to determine the appropriate limiting nutrient for developing land application rates, *i.e.*, whether phosphorus or nitrogen limits the amount of manure, litter, or process wastewater that can be applied and the degree to which the limiting nutrient restricts land application, or whether land application is to be avoided altogether. State technical standards typically allow nitrogen-based application rates on fields with a low phosphorus risk rating. For fields that have a moderate to very high phosphorus risk rating, State technical standards generally limit the amount of phosphorus that may be added to a field.

In determining rates of application where phosphorus is the limiting nutrient, the amount of phosphorus that may be land applied is based on the annual phosphorus removal rate for each crop or other field use. In deciding how much manure may be land applied, the amount of plant available phosphorus already in the field is not deducted because State technical standards identify the rate of application based on the crop removal rate. Because soil levels tend to change incrementally, depending on the buffering capacity of the soil, and because a phosphorus-based application rate doesn't reduce the amount of phosphorus already in soil, phosphorus-based rates of application may remain relatively constant for a period of several years or longer, so long as the outcome of the assessment of phosphorus transport does not change during that time. However, any multi-year phosphorus application must be done in accordance with State technical standards.

In determining rates of application where nitrogen is the limiting nutrient, the NMP must consider the total amount of plant available nitrogen for each crop from residual nitrogen already in the field and the nitrogen added for a particular field. Residual nitrogen is the nitrogen that remains from prior applications of manure, litter, process wastewater, or chemical fertilizer, or from other sources such as crop residues and nitrogen fixing legumes. The addition of nitrogen to a field includes application of chemical fertilizer as well as application of manure, litter, or process wastewater and other materials such as biosolids.

Crediting for all residual nitrogen in the field that will be plant available, as a result of prior additions (*e.g.*, crop residue, legume credits, and previous manure applications), should be done in accordance with the directions provided in the technical standards established by the Director (required for all permitted Large CAFOs). Since organic forms of nitrogen typically become plant available when they are converted to inorganic forms, such as nitrate and ammonium, crediting generally identifies the amount of organic nitrogen likely to be converted to inorganic forms that will be plant available. Credits are calculated using soil test results included in the NMP and projected applications of nitrogen from manure, litter, and process wastewater during intervening years, as well as other additions, including from crops (*e.g.*, where crops are plowed under or residues are left on the field or where nitrogen-fixing legumes are grown), and other sources of nitrogen remaining on the field that would be plant available during the next growing season.

EPA expects a complete NMP also to account for any other additions of plant available nutrients during the crop year,

such as chemical fertilizer, irrigation water (groundwater may have measurable concentrations of nutrients), and biosolids, where applied.

The forms of nitrogen and phosphorus to be factored into calculations for rates of application are generally identified in the technical standards established by the Director or in other documentation referenced in the State's technical standards. Typically, the amount of plant available phosphorus is determined based on the amount of various forms of phosphate added to or present in the soil and the amount of organic phosphorus that will mineralize during the growing season. The amount of plant available nitrogen is based on the amount of inorganic nitrogen (*e.g.*, nitrate and ammonium-nitrogen) added to or present in the soil and the amount of organic nitrogen that will mineralize during the growing season. The amount of plant available nitrogen also depends on losses due to volatilization, which is calculated using the nitrogen volatilization rate associated with the source of nutrients and the timing and method of land application. As previously discussed, it is the forms of nitrogen and phosphorus that will be available to a given crop that are most relevant in determining rates of application. In this final rule, the appropriate forms of nitrogen and phosphorus to be factored into these calculations must be expressed in chemical forms determined to be acceptable by the Director, such as in the permit or in the technical standards established by the Director.

As discussed above, the NMP must include calculations projecting for the length of the permit term the amount of manure, litter, or process wastewater, in tons or gallons, to be land applied in order to meet, but not exceed, crop nutrient needs (after considering residual nutrients and other additions of nutrients and results of the most recent manure test) based on the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport, *i.e.*, whether application rates will be limited by nitrogen or phosphorus. These calculations must also take into account, with respect to each crop to be grown or other agricultural use, the source and form of nutrients to be land applied; the method of application of manure, litter, and process wastewater; and the timing of when application will occur. Although a properly developed NMP addresses all of these factors, some operators may have multiple sources of manure, litter, or process wastewater and may need to make the determination as to which source to draw from for land application to a particular field in a given year at some point in time after the NMP has been developed. The method of application depends on the source and form of manure, litter, or process wastewater; the location of a particular field and the equipment available for such field; the soil nutrient status; and the crop to be planted. For example, wastewater could be spray-irrigated, otherwise surface applied, or injected, whereas poultry litter is most likely to be surface applied by a manure spreader.

Whereas one CAFO operator may wish to follow the planned sequence of steps for planting crops and applying manure, litter, and process wastewater described in the NMP submitted to the Director, another operator may want or need to vary from that linear sequence of events, due to choices made in the course of normal operations, or in response to events or circumstances beyond the CAFO's control, such as weather, crop failure, or market conditions. EPA has addressed this concern in this final rule by including two alternative approaches for determining the terms of an NMP, as discussed below.

As indicated above, EPA is promulgating two approaches for defining the terms of an NMP for rates of application, rather than the three approaches that were proposed in the 2008 supplemental notice. While a number of commenters encouraged EPA to include all three proposed approaches in the final rule to allow operators the greatest number of alternative options, many commenters were critical of the matrix approach. Some commenters suggested EPA should finalize only the narrative rate approach because they felt that the linear and matrix approaches were too inflexible to be useful. Others suggested that the inclusion of three approaches would create a program that is too complicated for permittees, permitting authorities, and the public. One commenter stated that the matrix approach fails to fully address the complexity of the decision-making process facing the CAFO operator. Several industry commenters found the matrix approach to be less flexible than necessary and overly burdensome. Environmental group commenters found the matrix approach to be too rigid to ensure protection of water quality and not inclusive of critical information. In reviewing the comments, EPA agrees that the matrix approach does not adequately address the complexity of the nutrient management decisions to be made by the CAFO operator and that it could result in over-application of manure, litter, or process wastewater. In addition, EPA agrees that having three approaches to identifying terms of the NMP with respect to application rates is unduly complicated and would be unnecessarily burdensome. Moreover, EPA believes that the improvements and clarifications to the linear and narrative rate approaches promulgated in this final rule make inclusion of the matrix approach unnecessary. In considering comments that criticized the inability of the matrix approach, as proposed, to more directly address the complex dynamics relating application rates to crop needs, EPA would have needed to make adjustments that would have made the matrix approach either more like the linear approach or more like the narrative rate approach. As a result, and in consideration of comments stating that including three approaches is unnecessary and burdensome, EPA has decided to eliminate the matrix approach as an option for identifying the terms of the NMP for rates of application.

Some industry commenters indicated that CAFOs should be allowed to choose from either approach as long as they maintain the same approach for the five-year permit term while another industry commenter stated that CAFOs should be allowed to switch approaches during the permit term. This final rule does not address the possibility of switching approaches during a permit term. It is up to the discretion of the Director whether such a change would be allowed. However, because each approach differs in what are the terms of the permit, switching approaches during the permit term would require a permit modification to include the terms of the NMP associated with the selected approach into the permit.

Under both of the approaches, the terms of the NMP are required to include specific factors used for the development of rates of application. These include:

- The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field;
- The crop or crops to be planted in each field or any other uses such as pasture or fallow fields;
- The realistic yield goal for each crop or use identified for each field; and
- The nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field.

Both of the approaches account for other information necessary for determining the amount of manure, litter, and process wastewater to be land applied. This information relates to: (1)

Credits for residual nitrogen available in each successive year during the five year term of the permit; (2) consideration of any multi-year phosphorus application; (3) accounting for additions of commercial fertilizer and other additions of nitrogen and phosphorus during each successive year; (4) the form (liquid, solid) and source (*e.g.*, lagoon, compost, process wastewater) of the material to be land applied; (5) nitrogen and phosphorus content of the manure, litter, or process wastewater; (6) timing of application; and (7) method of application (*e.g.*, spreading, spray, injection). However, the two approaches differ in the way they incorporate this information in expressing the rates of application as terms of the NMP. The following sections of the preamble describe the two approaches and how each approach accounts for this information.

(A) Linear Approach—Rates Expressed in Pounds of Nitrogen and Phosphorus From Manure, Litter, and Process Wastewater

The first approach (*see* 40 CFR 122.42(e)(5)(i)) allows the CAFO to express rates of application as pounds of nitrogen and phosphorus from manure or litter, and process wastewater. The terms of the NMP include maximum application rates for each year of permit coverage, for each crop identified in the NMP, in pounds per acre, per year, for each field to be used for land application. In addition, the terms of the NMP include the following factors:

- The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field;
- The crop or crops to be planted in each field or any other uses such as pasture or fallow fields;
- The realistic yield goal for each crop or use identified for each field;
- The nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field;
- Credits for all nitrogen in the field that will be plant available;
- Consideration of multi-year phosphorus application;
- Accounting for all other additions of plant available nitrogen and phosphorus to the field;
- The form and source of manure, litter, and process wastewater to be land applied; and
- The timing and method of land application.

The terms also include the methodology by which the NMP accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

This approach is considered a ''linear'' approach because it is based on the use of only those crops included in the planned crop rotations in the NMP; the amounts of nitrogen and phosphorus from manure, litter, and process wastewater to be land applied according to the planned schedule for land application (including source and method and timing of application); and the projected values for plant available nitrogen and phosphorus from other sources. Under this approach, a single set of field-specific rates of application would be established, based on the predicted sequence of activities the CAFO plans to follow in implementing its NMP, and a CAFO would be required to follow the sequence identified in the NMP for each field-specific crop rotation and each planned step for land application of manure, litter, or process wastewater.

Under this linear approach, a CAFO must land apply manure, litter, and process wastewater in amounts that will result in application of no more than the amounts of nitrogen and phosphorus from manure, litter, and process wastewater specified for each field in the NMP, following the schedule and the methods of application described in the NMP. When applying manure, litter, and process wastewater, CAFOs will need to take into account manure test results, including for Large CAFOs the annual manure test results required by the 2003 final rule, so as to not exceed the nutrient needs of the crops. Medium and small CAFOs must apply manure, litter, and process wastewater consistent with Best Professional Judgment (BPJ)-based requirements established in the permit for accounting for the nutrient content of the manure. Large CAFOs using the linear approach must calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application.

The methodology used for translating the amounts of nutrients in pounds into the amount of manure, litter, and process wastewater to be land applied, in tons or gallons, is a term in the linear approach. This includes incorporation of manure test results in determining such rates.

The final rule differs from the proposed linear approach with respect to the expression of the rates of application. EPA proposed that application rates in the linear approach be expressed in terms of tons or gallons of manure, litter, and process wastewater. Several commenters stated that the application rate under the linear approach should be expressed in terms of pounds of nitrogen and phosphorus rather than tons and gallons of manure and wastewater. The commenters felt that this approach would more accurately account for the actual nutrient content of the manure and wastewater being applied. EPA agrees with the commenters and has changed the linear approach accordingly to address this concern. The key advantage of this change is that it ensures that the results of manure testing, which for Large CAFOs is required to be done annually, are used in determining the actual amount of manure, litter, and process wastewater to be applied. EPA believes that expressing the rate in terms of pounds of nitrogen and phosphorus from manure, litter, and process wastewater provides greater environmental protection by requiring operators to adjust the actual amount of manure, litter, and process wastewater applied based on the most current manure nutrient test results.

The utility of this approach, nevertheless, hinges on the CAFO making accurate predictions in the NMP that are not disrupted by changes to the CAFO's operation or by circumstances beyond the control of the CAFO operator. Any changes to the terms of the NMP would constitute a change to the terms of the permit, which would require a permit modification. See discussion in section III.C.3(e) of this preamble, ''Changes to a Permitted CAFO's Nutrient Management Plan.'' For example, any change to the planned crop sequence, such as the addition of a second crop to a field, requires a permit modification.

On the other hand, the advantage of this approach is its relative simplicity for CAFOs with predictable crops and land application. The linear approach would be particularly suitable for operations that consistently plant one crop or two crops in rotation on the same fields, using the same source and form of manure, litter, or process wastewater, and that land apply on a regular annual schedule using the same application method(s).

EPA notes that even under the linear approach, operators may provide themselves some flexibility by specifying more than one field-specific crop rotation plan in the NMP, with application rates of nitrogen or phosphorus specified for each alternative plan for inclusion in the permit. This might be practical for operators who are reasonably confident

that they will follow one of two or three potential crop rotations. EPA is promulgating the other approach for operators seeking a greater degree of flexibility.

(B) Narrative Rate Approach—Rates Derived From Total Amounts of Plant Available Nitrogen and Phosphorus

This final rule includes a second approach that would allow rates of application to be expressed as a narrative rate that includes the total amount of plant available nutrients from all sources combined with a specific, quantitative method for calculating the amount, in tons or gallons, of manure, litter, and process wastewater allowed to be land applied. (*See* 40 CFR 122.42(e)(5)(ii).) Unlike the linear approach, in this quantitative narrative rate approach, the terms of the NMP include the maximum amounts of nitrogen and phosphorus from all sources of nutrients for each crop or other field use identified in the NMP, in chemical forms determined to be acceptable to the Director, in pounds per acre, for each field.

As required at 40 CFR 122.42(e)(5)(ii)(A), the narrative rate approach also includes as terms the following four factors:

- The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field;
- The crop or crops to be planted in each field or any other uses such as pasture or fallow fields;
- The realistic yield goal for each crop or use identified for each field; and
- The nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field.

In addition, this narrative rate approach includes as a term of the NMP the methodology by which the NMP accounts for certain factors when calculating the amounts of manure, litter, and process wastewater to be land applied. A CAFO using the narrative rate approach is required to apply in accordance with the resulting calculations. This final rule requires the methodology in NMPs developed using this approach to account for the following factors:

- Results of soil tests conducted in accordance with protocols identified in the nutrient management plan, as required by 40 CFR 122.42 (e)(1)(vii);
- Credits for all nitrogen in the field that will be plant available;
- The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;
- Consideration of multi-year phosphorus application;
- All other additions of plant available nitrogen and phosphorus to the field;
- The form and source of manure, litter, and process wastewater;
- The timing and method of land application; and
- Volatilization of nitrogen and mineralization of organic nitrogen.

The factors listed above are not themselves required to be terms in the narrative rate approach, but the methodology used to account for them in the CAFO's permit is a term. Thus, the CAFO operator will be bound by the methodology and the way in which these factors must be accounted for in calculating the actual amount of manure, litter, or process wastewater allowed to be applied to the field. The terms of the NMP under this approach do not include the amount of nitrogen and phosphorus in the manure, litter, or process wastewater allowed to be land-applied as set forth in the NMP, but they do include the methodology prescribed in the NMP for calculating these amounts. And while the terms of the NMP do not include the predicted source, form, timing, and method of application of manure, litter, or process wastewater set forth in the NMP, they include the methodology that accounts for these factors in determining the amount of manure, litter, or process wastewater allowed to be applied. This allows the actual inputs and results for these factors to be something other than what was projected in the NMP during the period of permit coverage, using the methodology, while ensuring that the CAFO meets the requirements of 40 CFR 122.42(e)(1) and, for Large CAFOs, 40 CFR 412.4, by applying in accordance with the methodology and other terms of the NMP.

This approach requires that the CAFO apply manure, litter, or process wastewater according to the results of this calculated amount. For example, if the NMP projected an amount of manure to be applied based on incorporation of solid manure, the operator could apply process wastewater from the lagoon by spraying the field instead. In this example, the methodology must account for factors of form, source, and method of application such that these inputs and results can be other than what was projected in the NMP and the amount of manure allowed to be applied will be predictably and accurately calculated. In other words, the methodology and requirement that application be in accordance with the rate calculated using that methodology are enforceable term that must be complied with at the time of determining how much, from which source, in what form is allowed to be applied to the field using which method of application.

40 CFR 122.42(e)(5)(ii)(C) clarifies that the amount of manure, litter, and process wastewater to be applied as projected in the NMP submitted with the permit application or NOI is not a term of the NMP under the narrative rate approach. As explained above, the amount of manure, litter, and process wastewater is to be calculated using the methodology included in the NMP and based on actual amounts of plant available nitrogen and phosphorus from all sources at the time of land application. Other projections that must be included in the NMP but are not terms are the CAFO's planned crop rotations for each field; credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; the predicted form, source, and method of application of manure, litter, and process wastewater for each crop; and the timing of application for each field, insofar as it concerns the calculation of rates of application (permitting authorities may establish in permits or technical standards for nutrient management land application timing restrictions, such as prohibitions on land application to frozen or saturated ground, that would be permit terms).[5]

As specified at 40 CFR 122.42(e)(5)(ii)(B), NMPs for which terms are identified using the narrative rate approach may also include alternative crops not included in the planned rotation in the NMP, so long as the NMP includes for each crop realistic yield goals, nitrogen and phosphorus recommendations from sources specified by the Director, and maximum amounts of nitrogen and phosphorus from all sources. The terms and factors associated with alternative crops would be the same as the terms and factors required for the crops included in the planned rotation in the NMP.

EPA received several comments on the proposed terms and factors for the narrative rate approach. Commenters requested that EPA refer only to ''plant available'' nutrients in the narrative rate approach. Some confusion may have been caused by EPA's reference in the preamble to the 2008 supplemental proposal to the ''maximum amount of total nitrogen and phosphorus'' with regard to expression of the application rate under the narrative approach. This

[5] See footnote 4.

language was intended to refer to the total amounts of nitrogen and phosphorus, rather than referring to a specific chemical form (''total nitrogen'' or ''total phosphorus''). This has been corrected in this final rule and preamble by removing the word ''total.'' The final rule refers to plant available forms of nutrients with regard to determining credits for nitrogen in the field and accounting for all other additions of plant available nitrogen and phosphorus to the field. Otherwise, the rule requires expression of application rates in chemical forms determined to be acceptable to the Director, such as indicated in the technical standards established by the Director, or in the permit.

One commenter suggested that crop yields be included as a factor under the narrative rate approach and that yield goals should be adjusted for operations that consistently fail to meet them. This final rule includes realistic yield goals as a term under both approaches. Realistic yield goals will be included in the NMP and, therefore, will be subject to review by the permitting authority and the public. In addition, States may establish in their technical standards criteria for deriving realistic yield goals including criteria for adjusting yield goals based on actual crop yields. EPA believes that this is sufficient to ensure that the yield goals used to calculate application rates in NMPs are appropriate. Upon subsequent permit issuance, the public will have the opportunity to review yield goals in light of actual yields reported by the CAFO in its annual reports (see 40 CFR 122.42(e)(4)(viii)).

The narrative rate approach would eliminate certain issues associated with a five-year planning cycle previously discussed in connection with the linear approach presented above. A key difference of the narrative rate approach, is that it would require application rates for manure, litter, and process wastewater to be recalculated at least annually using the methodology specified in the NMP (40 CFR 122.42(e)(5)(ii)(D)). Unlike the linear approach, the narrative rate approach allows CAFOs that may need to adjust their rates of application of manure, litter, and process wastewater due to changes in soil levels of nitrogen and phosphorus to do so without requiring the permit to be modified. Therefore, it is important to ensure that the actual changes in soil levels of plant available nitrogen and phosphorus are taken into account, rather than relying on five-year projections of fluctuations provided in the NMP.

The narrative rate approach requires an annual determination of soil levels of nitrogen and phosphorus. For nitrogen, the annual determination must include a concurrent calculation of nitrogen that will be plant available consistent with the methodology specified in the NMP. As described above, this methodology must account for the factors that would affect soil nitrogen levels on an annual basis such as the form and timing of previous land application(s); the actual amount of nitrogen in the manure, litter, and process wastewater previously applied; and volatilization and mineralization rates for nitrogen. For phosphorus, the annual determination must include the results of the most recent soil test conducted in accordance with sampling requirements approved by the Director. As in the case of other technical determinations to be made by the Director as part of this final rule, the Director's determination concerning sampling requirements may be made in the technical standards established by the Director, in the permit, or by an equivalent determination made elsewhere. Many States require sampling to be done every two or three years, for most conditions. Some require more frequent sampling generally, and others require more frequent sampling at higher concentrations of soil test phosphorus. If sampling is conducted more frequently than required by the Director, then the determination must be based on the results of the most recent test.

EPA proposed that CAFOs using the narrative rate approach would be required to test soils annually for nutrient content and that these data be used in recalculating the amount of manure, litter, and process wastewater to apply annually. Many commenters opposed annual soil testing for phosphorus. These commenters stated that annual testing is inconsistent with State land grant university guidance, is unnecessary because phosphorus levels in the soil do not change significantly from year to year and that such testing would be cost-prohibitive for many operations. A number of commenters suggested alternative testing frequencies ranging from three to five years. Several commenters suggested that annual phosphorus testing be required only where the soil phosphorus level is already high or previous applications have exceeded the crop phosphorus removal rate (such as where manure is applied at a nitrogen-based rate). A few commenters asked EPA to clarify that annual soil testing only applies to fields that will receive manure in the year the testing is performed. One commenter indicated that, under certain circumstances, manure nutrient testing should be required more frequently than annually. Although the supplemental proposal did not specifically propose to require annual soil nitrogen testing, several commenters indicated that such testing should not be required, citing limitations in accuracy and effectiveness of the testing methods currently available. EPA agrees with commenters that, in a number of States, annual soil testing for phosphorus has been determined to be unnecessary. EPA recognizes that soil test requirements vary from State to State, and may include testing for nitrogen as well as phosphorus. Based on these responses from a range of commenters and the various suggested alternatives, EPA has replaced the proposed annual soil testing requirement for the narrative rate approach with the requirement that an annual determination of soil nutrient levels be based on current data and calculations as described above to support ''real time'' calculation of appropriate application rates. This final rule does not specify a minimum frequency for soil phosphorus testing, but instead requires CAFOs to include the results of the most recent soil tests for phosphorus conducted in accordance with soil testing requirements approved by the Director.

The annual recalculation of the amount of manure, litter, and process wastewater allowed to be applied must also rely on the results of the most recent representative manure, litter, and process wastewater tests taken within 12 months of the date of land application. These data along with the annual determination of soil levels of nitrogen and phosphorus must be used to calculate, in real time, the amount of manure, litter, and process wastewater to be applied to supply the remaining nitrogen and phosphorus needed for the actual crop being planted on the field. Commenters requested that the narrative rate approach express application rates in terms of pounds of nutrients rather than tons of manure to allow appropriate utilization of nutrients in manure whose nutrient content varies over time. In practice, the narrative rate approach requires that amounts of manure, litter, and process wastewater to be land applied be calculated first in pounds of nutrients and then translated into tons or gallons of manure, litter, and process wastewater using current manure nutrient analyses. The information presented to the public in the CAFO's NMP will include the projected amounts for the planned crop rotation, in tons or gallons of manure,

litter, or process wastewater, since this is the endpoint of the calculation of the amount to be applied. As discussed above, these projected amounts are not themselves terms, since they will need to be recalculated each year based on updated information.

One commenter suggested that EPA specify that manure tests and plant tissue tests also be used in the annual rate recalculation. As described above, this final rule does require consideration of recent manure test results in annual application rate recalculations. Plant tissue testing may be an effective tool for determining nitrogen deficiencies (and the need for supplemental nitrogen application), as well as for determining excess nitrogen. However, plant tissue tests are typically taken after manure applications have been made on a field and thus are unavailable at the time the operator is determining rates of application. A CAFO's NMP may include plant tissue testing as part of the CAFO's methodology so long as it is done consistently with State technical standards.

In addition to accounting for the crop and field information, the methodology for the annual recalculation of the amount of manure, litter, and process wastewater to apply must account for a number of other variables, including the form and source of the manure, litter, and process wastewater and the timing and method of application, as described above. The operator may not apply more than the maximum amount of nitrogen and phosphorus calculated using the methodology.

Under this approach, the NMP will include planned crop rotations for each field and corresponding projected amounts, in tons or gallons, of manure, litter, and process wastewater to be applied, including all of the calculations for determining such projected amounts, for the period of permit coverage. This will give the permitting authority and the public an opportunity to review, prior to permit issuance, the adequacy of the CAFO's methodology and the way the CAFO uses the methodology to calculate the appropriate amount of manure, litter, and process wastewater to be applied, based on the operator's planned crop rotation at the time of permit issuance. Again, these planned crop rotations and projected amounts are not terms, as they will need to be recalculated each year based on updated information; however these projections will allow the public to see how the methodology (which is a term) is applied to a projected set of facts to calculate the amounts to be land applied.

Several commenters expressed concerns about the enforceability of the narrative rate approach, citing the lack of an objective rate and public availability of supporting information used to calculate the rate. The narrative rate approach requires the CAFO to recalculate the amount projected in the NMP of manure, litter, and process wastewater to be land applied, using the methodology in the NMP, at least once a year, throughout the period of permit coverage. In recalculating these amounts, a CAFO will be required to use concurrent calculations of credits for all plant available nitrogen in the field and the results of the most recent soil tests for phosphorus in the field. The CAFO will then calculate the maximum amount of nitrogen and phosphorus from manure, litter, and process wastewater allowed to be applied, as a portion of the total amount of nitrogen and phosphorus from all sources, using the methodology in the NMP. Under the narrative rate approach, the CAFO must use the methodology specified in the NMP (which is a term) to account for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied when calculating the maximum amount of manure, litter, and process wastewater allowed to be applied. To ensure that such recalculations are made available to the Director and the public, the recalculations and the new data from which they are derived are required to be reported in the CAFO's annual report for the previous twelve months. In other words, the rate of application would be an objective, enforceable rate, because the permit will specify the methodology required for calculating the amount of manure, litter, and process wastewater allowed to be applied, certain values or sources of information required to be used in the methodology, and will limit the total amount of nitrogen and phosphorus from all sources for each crop. Failure to comply with the rate established under the permit would be a violation of the permit, and the Director and the public will be able to determine whether the rate was complied with from the annual report.

Most commenters who commented on the narrative rate approach were supportive of the approach in terms of its degree of flexibility. Some commenters suggested that it should be the only approach adopted in the final rule. EPA believes that the flexibility of the narrative rate approach will reduce the burden on permitting authorities and CAFO operators by decreasing the number of substantial changes to the permit which require public notice and comment, arising from changes to the CAFO's crop rotations, while ensuring that all effluent limitations applicable to a permitted CAFO are incorporated as terms of the permit, as required by the Waterkeeper decision.

As many commenters on the 2006 proposed rule pointed out and EPA recognizes, there may be changes in field conditions or practices at a CAFO, including, for example, those that alter the projected levels of plant available nitrogen and phosphorus in the soil or in the manure over the period of permit coverage. Such changes introduce some uncertainty in setting application rates for five years as enforceable terms of the permit. The narrative rate approach is designed to accommodate these concerns by allowing a CAFO to compensate for changes in soil levels of plant available nutrients, in manure nutrient content, or in the timing and method of application, by adjusting the application rates accordingly without the need for a permit modification. However, the operator will be limited to the total crop-specific amount of nitrogen and phosphorus from all sources and will have to adhere to a methodology that establishes the way in which such rates are to be calculated. Thus, in the second and later years of the permit term, this approach will provide an accurate and verifiable means of achieving realistic production goals while minimizing transport of phosphorus and nitrogen from the field. This will help CAFOs avoid the possibility of over-application of nitrogen or phosphorus because of increased levels of nutrients in the soil, compared to what was projected at the time of permit issuance, and, conversely, the possibility of failing to meet crop agronomic needs due to under-application of nitrogen or phosphorus.

(d) Process for Incorporating Terms of the Nutrient Management Plan Into a General Permit

The Agency is also promulgating procedural requirements for incorporating the terms of the NMP into an NPDES general permit, in new paragraph 40 CFR 122.23(h)(1).

Once the processes for publicly reviewing the NMP and the terms of the NMP have been completed, the Director must address all significant comments raised and make a final decision whether to grant coverage under a general permit. As necessary, the Director will require a CAFO owner or operator to revise their NMP to address issues raised during the review process. Once the Director determines that the

process for the development of a CAFO's NMP is complete, the Director must make the final decision whether to grant permit coverage to the CAFO under the general permit. If coverage is granted, the Director must incorporate the relevant terms of the NMP into the general permit (as described later) and inform the CAFO owner or operator and the public that coverage has been authorized and of the applicable terms and conditions of the permit. Once a CAFO obtains authorization to discharge under an NPDES permit, the CAFO must implement the terms and conditions of the nutrient management plan as incorporated into the permit, as of the date of permit coverage authorization.

The preamble to the 2006 proposed rule discussed and requested comment on approaches for the Director to identify the terms of the NMP to be incorporated into the permit. These options ranged from attaching the entire NMP to the permit to identifying specific elements to be included in the permit as terms. Based on comments received on the proposed rule, EPA is specifying certain elements of NMPs with respect to land application as ''terms of the NMP'' that must be incorporated into the permit. EPA is not, however, requiring a single approach whereby the terms are made part of the permit, leaving to the Director the discretion to decide whether, for example, to attach the entire NMP to the permit and require compliance with the terms of the NMP or to specify the terms of the NMP and specifically identify each of them in the permit. Under this final rule, incorporation of the terms of a particular CAFO's NMP into a general permit is not a permit modification subject to 40 CFR 122.62. Rather, it is an extension of the CAFO general permitting process itself. As discussed above, EPA intends the process proposed in 40 CFR 122.23(h) to generally parallel the procedures in 40 CFR part 124.

Commenters supported an approach allowing a permitting authority to incorporate the entire NMP as a condition of the permit without distinguishing between the NMP and the ''terms'' of the NMP. Some supported attaching an NMP to the permit or general permit and requiring that the CAFO implement that NMP as a permit condition. As discussed above, this rule requires that a permit include the terms of a site-specific NMP. However, EPA is not prescribing the manner in which this incorporation takes place. The permitting authority may satisfy this requirement by incorporating a CAFO's NMP by reference into the permit or as described in the preamble to the 2006 proposed rule, the permitting authority may extract the terms of the NMP and attach them to the permit. Either way, the terms of the NMP are enforceable terms of the NPDES permit.

Other commenters sought greater State discretion in implementing NMP requirements as permit conditions. These commenters recognized the importance of implementing the NMP provisions but did not want this rule to interfere with effective existing State approaches. In addition, these commenters wanted to preserve the administrative advantages of using general permits.

This rule provides some State discretion by allowing permitting authorities to determine which NMP provisions to include as terms of the permit. The rule specifies what must be included at a minimum in the permit as terms of the NMP. However, States have the authority to adopt additional or more stringent requirements, under CWA section 510.

(e) Changes to a Permitted CAFO's Nutrient Management Plan

It is well understood that agricultural operations modify their nutrient management and farming practices during the normal course of their operations. Such alterations may require changes to a permitted CAFO's NMP during the period of permit coverage.

As discussed in the preamble to the 2006 proposed rule, the permit does not need to be modified for all operating changes. Because of the way NMPs are developed and the flexibility provided by the two options for developing the terms of the nutrient management plan at 40 CFR 122.42(e)(5), most routine changes at a facility should not require changes to the NMP itself. For example, a CAFO using the narrative rate approach would not ordinarily need to change its NMP when it makes changes to factors that are not themselves terms but are accounted for in the methodology. To minimize the need for revision, nutrient management plans should anticipate and accommodate routine variations inherent in agricultural operations such as anticipated changes in crop rotation, as well as changes in numbers of animals and volume of manure, litter, or process wastewater resulting from normal fluctuations or a facility's planned expansion. Typically, an NMP is developed to accommodate, for example, normal fluctuations in herd or flock size, capacity for manure, litter, and process wastewater storage, the fields available for land application and their capacity for nutrient applications. Moreover, as discussed in this preamble, EPA would encourage operators to develop an NMP that includes reasonably predictable alternatives that a CAFO may implement during the period of permit coverage. However, unanticipated changes to a nutrient management plan may nevertheless be necessary.

The final rule includes 40 CFR 122.42(e)(6), which requires a CAFO to notify the Director of changes to the CAFO's NMP. Section 122.42(e)(6) excludes the results of calculations made in accordance with 40 CFR 122.42(e)(5)(i)(B) and 122.42(e)(5)(ii)(D) from the requirements of paragraph (e)(6). The results of these calculations, which are required of Large CAFOs using the linear approach and all CAFOs using the narrative rate approach, must be reported in the CAFO's annual report. Thus, there is no need to provide this information pursuant to the requirements of paragraph (e)(6).

In the 2006 proposed rule, EPA proposed a process that CAFOs and the permitting authority would need to follow when a CAFO makes changes to its NMP. The proposal also included criteria for determining when a change to a CAFO's NMP should be considered a substantial change. In the 2008 supplemental notice, the Agency solicited comment on several modifications to the 2006 proposal including a list of changes to the NMP that would constitute a substantial change.

In this final rule, EPA is including a list of changes to the NMP that would constitute a substantial change to the terms of a facility's NMP, thus triggering public notice and permit modification. Substantial changes include: (1) Addition of new land application areas not previously included in the CAFO's NMP; (2) any changes to the maximum field-specific annual rates of application or to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as expressed in accordance with, respectively, the linear approach or the narrative rate approach; (3) addition of any crop not included in the terms of the CAFO's NMP and corresponding field-specific rates of application; and (4) changes to field-specific components of the CAFO's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport from the field to waters of the U.S.

This final rule also makes one exception to the first type of substantial change (a land application area being

added to the nutrient management plan), where such additional land is already included in the terms of another existing NMP incorporated into an existing NPDES permit. If, under the revised NMP, the CAFO owner or operator applies manure, litter, or process wastewater on such land application area in accordance with the existing field-specific terms of the existing permit, such addition of new land would not be a substantial change to the terms of the CAFO owner or operator's NMP.

EPA received a number of comments on the list of substantial changes in the 2006 proposed rule and 2008 supplemental proposal. One commenter encouraged EPA to state that substantial changes under the narrative rate approach only occur when the CAFO changes the system used to determine maximum allowable application rates. EPA agrees that changes in the methodology may be substantial changes to the terms of the NMP if they result in changes to the maximum rates of application or maximum amounts of nitrogen and phosphorus derived from all sources for each crop or if they result in changes likely to increase the risk of nutrient transport to waters of the U.S. However, EPA does not agree that there are no other changes that are substantial changes under the narrative rate approach. EPA believes that the four substantial changes identified in this final rule are appropriate for both of the approaches for determining rates of application. For example, proper implementation of the narrative rate approach depends on identification of the fields to be used for land application, so use of a new field for land application that had not been previously covered in the facility's (or another facility's) permit terms would constitute a substantial change. In addition, under the narrative rate approach a change to the field-specific maximum amounts of nitrogen and phosphorus derived from all sources is a substantial change to the NMP, because it defines the upper bounds on nutrient additions.

Some commenters suggested that EPA expand the list of substantial changes to include changes such as the maximum number of animals allowed for the CAFO site; production area changes that alter the volume and composition of waste; using soil, manure, plant tissue test results to refine the NMP; and changes in the status of the receiving waterbodies. With regard to the number of animals confined and the volume of waste generated, EPA has stated that the number of animals confined at a CAFO would not necessarily be a term of the NMP because a CAFO operator is required to properly operate and maintain the CAFO's storage facilities regardless of the number of animals or the volume of manure, litter, or process wastewater generated. For the same reasons, EPA believes that changes to these factors will not necessarily trigger substantial change to a CAFO's permit, although accommodating an increase in the number of animals or volume of manure could lead to changes to the NMP that would constitute substantial changes to terms of the NMP (and the permit). With regard to the use of soil and manure tests, both approaches discussed above for expressing land application rates in NMPs and associated terms allow for consideration of manure testing on an annual basis; and the narrative rate approach also requires consideration of the most recent soil test results. Finally, NPDES permits for all types of dischargers, including CAFOs, typically include reopener provisions under which the Director may revise the permit during the permit term based on factors such as changes to the status of the receiving water body. EPA believes that such standard NPDES provisions are sufficient to allow permit revisions necessary to support the criteria and standards established for receiving waters.

The Agency believes that the list of substantial changes included in this final rule address changes that most directly affect fundamental components of the NMP that relate to the land application of manure, litter, and process wastewater, which was a primary focus of the *Waterkeeper* decision. First, by identifying the addition of new land application areas not originally included in the terms of the NMP as a substantial change, the Agency makes clear that the fields to be used for land application must be permit terms, as all permitted CAFOs that land apply manure, litter, and process wastewater are required to do so at field-specific agronomic rates. The identification of land application areas in the NMP is essential for determining the effluent limitations applicable to a particular CAFO, which the *Waterkeeper* decision required be made available for public review and comment and incorporated into the permit. Thus, the public must have an opportunity to comment on the fields planned for land application during both the initial permit issuance phase and any subsequent permit modification phase. The exception for the addition of new fields already covered by an existing NPDES permit is consistent with the *Waterkeeper* decision because the rates of application for those land application areas will have already been publicly reviewed, approved, and incorporated into a permit as required by *Waterkeeper*.

Some commenters supported the addition of new land application areas as a substantial change. They also commented that adding or reducing land application areas would require a recalculation of the application rate. Some commenters were concerned that the addition of new land application areas as a substantial change is counterproductive, severely limits flexibility for producers to plan, does not add water quality benefit, discourages producers from adding land to their NMP and will hinder a CAFO's ability to quickly add more fields to the NMP. These commenters suggested the addition of land application areas can be addressed by requiring producers to submit this information with their annual reports. Some commenters also suggested granting States the flexibility to define when and what types of land application area additions would be considered a substantial change. Some commenters suggested that only the loss of land application areas should be treated as a major modification which requires public participation. As discussed above, under *Waterkeeper*, the public must have opportunity to review the fields planned for land application during both the initial permit issuance phase and any subsequent permit modification phase in order to determine whether field-specific rates of application have been properly developed. For this reason, the addition of new land application areas not already addressed under an existing NMP and permit must be considered a substantial change and made available for public review.

The second substantial change is any change to the field-specific maximum rates of application. The *Waterkeeper* decision makes clear the importance of these rates as terms of the NMP. Some commenters indicated this change should not apply to NMPs developed using the narrative approach, since the appropriate application rate should be calculated using the approved methodology. This final rule clarifies that, for the narrative rate approach, a substantial change is triggered by a change in the field-specific maximum amount of nitrogen and phosphorus derived from all sources.

The third substantial change is the addition to the NMP of crops or other uses not previously included in the CAFO's NMP, together with the corresponding maximum field-specific

rates of application for those crops or other uses. Because rates of application are based on the yield goals for each specific crop, any crops or other uses newly added to the plan will require corresponding newly calculated rates of application. In addition, because the maximum rates of application must be made available to the public for review prior to incorporation as terms of the permit, consistent with *Waterkeeper*, the addition of new crops or other uses and their corresponding rates of application is considered a substantial change.

Finally, any change to site-specific components of the CAFO's nutrient management plan that is likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S. is a substantial change. The Agency recognizes a number of changes as potentially triggering this requirement, including the following examples: (1) Alternate timing of land application that would diminish the potential for plant nutrient uptake; (2) methods of land application not provided for in the NMP calculation of amount of manure, litter, and process wastewater to be applied; (3) changes to conservation practices; and (4) changes in the CAFO's procedures for handling, storage, or treatment of manure, litter, and process wastewater. The actual crop planted, timing and method of land application, crop uptake, and conservation practices utilized with respect to the land application areas are all key factors that affect nitrogen and phosphorus runoff from the land application area. Changes to any of the planning considerations listed above can directly (and measurably) alter the outcome of the decisions made in an NMP and the efficacy of that plan in ensuring appropriate agricultural utilization of those nutrients that are land applied.

An advantage of the narrative rate approach is that it reduces the likelihood that changes to a CAFO's operation would result in a substantial change to the terms of the CAFO's NMP. For example, a change to the method or timing of application would be a substantial change to the terms of the NMP for CAFOs using the linear approach if the Director determines that it is likely to increase the risk of nutrient transport to surface waters. For a CAFO using the narrative rate approach, a change in the method or timing of application would not be a change to the terms of the NMP, and therefore not a substantial change, so long as the methodology in the NMP (itself a permit term) accounts for the change in method or timing.

Because changes to the NMP could result in a change to a permit term, the 2006 proposed rule provided that whenever a CAFO makes any change to its NMP, the owner or operator would be required to provide the Director with the revised NMP and identify the changes from the previous version submitted. Of course, any change to the CAFO's implementation of its NMP that does not constitute a change to the NMP itself would not be submitted to the Director. For example, for CAFOs following the narrative rate approach, any change in crop rotation or substitution of crops in a given rotation with alternative crops identified in the NMP for a given field would not be a change and thus would not need to be submitted to the Director prior to implementation.

Some commenters felt that substantial changes could be addressed by making those changes part of the annual report. For example, some commenters recommended that CAFOs using the narrative rate approach be required to include information associated with the addition of new crops in their annual reports. The annual report does not provide sufficient public notice for making changes to the terms of the NPDES permit. Those procedures are detailed below.

(f) Process for Review of Changes to an NMP and for Modifying Terms of the NMP Incorporated Into the Permit

When a permitted CAFO operator revises its NMP, this rule requires the CAFO operator to submit the revised NMP to the permitting authority for review and for the permitting authority to incorporate any revised terms of the NMP into the permit. This rule includes provisions that enable the Director to determine whether revisions to the CAFO's NMP necessitate revisions to the terms of the NMP incorporated into the permit, and if so, whether such changes are substantial or non-substantial. This rule identifies several specific types of changes that must be considered substantial changes to the NMP, and this preamble provides further guidance for distinguishing between substantial and non-substantial changes. This final rule also establishes a streamlined process for formal public notice and comment that the permitting authority must follow for permit modification when a CAFO is seeking to make substantial changes to the terms of its NMP. Non-substantial changes to the terms of the NMP are not subject to public notice and comment before the permit is revised. Finally, this rule establishes provisions for incorporating both substantial and non-substantial revisions to terms of the NMP into the permit as a minor permit modification. These procedures apply to all permitted CAFOs, regardless of whether they are covered under an individual permit or under a general permit. These procedures are discussed in greater detail, below.

As mentioned above, this final rule requires that whenever a CAFO makes any change to its NMP (see discussion in section III.C.3(e) of this preamble, ''Changes to a Permitted CAFO's Nutrient Management Plan''), the owner or operator must provide the Director with the revised NMP and identify the changes from the previous version submitted to the permitting authority. *See* 40 CFR 122.42(e)(6)(i). 40 CFR 122.24(e)(6)(ii) requires the Director to then review the revised plan to ensure that it still meets the requirements of 40 CFR 122.42(e) and applicable effluent limitations and standards, including those specified in 40 CFR part 412. This rule also requires the Director to determine whether the changes necessitate revision to the terms of the NMP that were incorporated into the permit issued to the CAFO. If not, the Director must notify the CAFO that the permit does not need to be modified. Upon such notification the CAFO may implement the revised nutrient management plan.

If, on the other hand, the Director determines that the changes to the NMP do require that the terms of the NMP that were incorporated into the permit be revised, the Director must next decide whether or not the change is substantial. The Director will evaluate the change based on the provisions in § 122.42(e)(6)(iii) discussed above. Pursuant to 40 CFR 122.42(e)(6)(ii)(A), for non-substantial changes, the Director must make the revised nutrient management plan publicly available and include it in the permit record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner or operator and inform the public of any changes to the terms of the nutrient management plan that are incorporated into the permit. Upon such notification the CAFO may implement the revised nutrient management plan.

If the changes to the terms of the NMP are substantial, the Director will also modify the permit as necessary by incorporating revised terms of the NMP, but only after the public has had the opportunity to review and comment on the NMP changes pursuant to the requirements of 40 CFR 122.24(e)(6)(ii)(B). The process for public comments, hearing requests, and the hearing process if a hearing is

granted must follow the procedures for draft permits set forth in 40 CFR 124.11–13. The Director must respond to all significant comments received during the comment period as provided in 40 CFR 124.17, and require the CAFO owner or operator to further revise the nutrient management plan if necessary. Once the Director incorporates the revised terms of the nutrient management plan into the permit, the Director must notify the owner or operator and inform the public. A permit modification to revise the terms of the NMP incorporated into the permit may be appealed in the same manner as the initial final permit decision.

The Director may establish by regulation, or in the general permit for CAFOs authorized under a general permit, an appropriate period of time for the public to comment and request a hearing on the proposed substantial changes to the terms of the nutrient management plan incorporated into the permit that differs from the time period specified in 40 CFR 124.10. EPA is providing this discretion to the Director to allow CAFOs to implement revised nutrient management practices in accordance with growing seasons and other time sensitive circumstances. As is stated above in section III.C.3(b) of this preamble regarding public review of NMPs during the general permit process, the public will have an opportunity to comment on the sufficiency of the time period when the Director proposes it, either in the regulations or general permit.

Because the process in § 122.42(e)(6)(ii) allows for public review of substantial changes to the terms of nutrient management plans and the underlying data and calculations, the incorporation of changes to the permit through this process will be treated as a minor permit modification, under 40 CFR 122.63(h), and not require additional review. EPA considered requiring that any change to the NMP be considered a permit modification subject to procedures under 40 CFR 122.62, but rejected this interpretation as it would significantly limit permitting authorities and CAFO operators' ability to make necessary and timely minor changes to NMPs as discussed above.

Commenters identified several issues associated with the proposed process for making substantial changes to NMPs. Several commenters indicated that the need for the permitting authority to review, provide public notice and comment, and approve substantial changes to NMPs will likely result in significant delays which will impact the operational ability of many CAFOs to make timely nutrient management decisions. Some commenters suggested that the process for making such changes be streamlined or time-limited. Other commenters requested that EPA provide flexibility to accommodate existing State criteria and procedures for determining and addressing substantial changes. Some State commenters indicated that they already have effective procedures in place. Some commenters simply asserted that the State Director should have discretion whether or not to require a permit modification.

The NPDES regulations at § 122.62 specifically require that any change to permit terms and conditions requires permit modification to be subject to public review and comment procedures, unless it falls under a minor modification listed at 40 CFR 122.63. In this rule, EPA has accounted for the frequent operational changes unique to CAFOs which are not typical for other NPDES-regulated industries. This tailoring is an effort to balance environmental protection with the burden to CAFOs and permitting authorities as well as the need to allow other operational changes that would not trigger the substantial modification requirements.

The process in this rule for making changes to NMPs and incorporating such changes in permits is necessary as a result of the *Waterkeeper* decision, which held that terms of the NMP are effluent limitations and that the CWA requires that the terms of each NMP be incorporated into a corresponding permit and be subject to public notice and comment and permitting authority review. Within this context, EPA has worked to streamline the process to the extent possible. This includes promulgating a process for revising NMPs that delineates what are substantial changes to the terms of the NMP and allows non-substantial changes to proceed in an expedited manner. It also includes provisions that allow a CAFO to develop NMPs with operational contingencies to minimize the number of substantial changes that must be made. As explained herein, the process and criteria in 40 CFR 122.42(e)(6) are reasonable and necessary to provide permitting authorities an effective mechanism to maintain linkage between the NMP and the permit in a manner consistent with the *Waterkeeper* decision.

Commenters suggested changes to the process in the 2006 proposed rule. Several commenters requested that EPA approve certain substantial changes as long as the CAFO continues to comply with all applicable technical requirements. Such substantial changes could include adding a new and substantially different field or increasing the animal headcount so as to exceed the previously identified ''maximum'' amount of manure in the NMP. In addition, one commenter recommended that the permitting authority inspect the CAFO before allowing any substantial changes to the NMP.

The final rule does not expressly provide that a permitting authority can pre-approve certain substantial changes, unless they are specified in an NMP that encompasses normal fluctuations or variations, because the *Waterkeeper* decision dictates that NMPs must be subject to permitting authority review and the terms of the NMP available for public comment. In addition, EPA does not believe an inspection is needed prior to allowing any substantial change to an NMP. Apart from the burden this would entail, EPA expects that self-reported information is credible and notes that there are significant penalties for submitting false or misleading information.

Many commenters supported the proposal that non-substantial changes would require only that the CAFO submit a revised NMP and that the permitting authority would notify the public of the change without allowing for public comment. Commenters encouraged EPA to clarify that, upon submission, the CAFO may proceed to implement such changes if the CAFO believes they are non-substantial. Many commenters stated that there is a need to ensure that CAFOs can quickly make changes to NMPs. One commenter recommended that EPA allow CAFOs to accumulate minor changes and submit them as a group when renewing their permit. Another commenter suggested that any changes incurred during a given year be reported in an annual NMP update form. EPA decided that, because the terms of the NMP are enforceable terms and conditions of the permit, CAFOs must submit changes to the NMP to the permitting authority and receive approval before a change is made, not annually or at the beginning of each new permit cycle.

Commenters were generally unsupportive of the proposed 180-day temporary approval period for implementation of certain substantial changes. Numerous commenters stated that this would not be helpful to CAFO owners because they would be hesitant to invest significant amounts of money to make substantial changes based only on a temporary approval, since final approval would remain subject to an uncertain regulatory status. Others

requested clarification regarding what happens if a change is implemented and then not approved. Some of these commenters suggested as an alternative that EPA require the permitting authority to process the applications in fewer than 45 days, and then allow seven days of public review.

Another commenter stated that the temporary approval period is inadequate because 180 days is longer than the crop growing season. This commenter observed that the temporary approval would allow CAFOs to change their entire land application patterns for an entire crop season without having public comment and review by the permitting agency. This commenter suggested that CAFOs plan in advance for any substantial changes and that only if the substantial changes are the result of unforeseen circumstances outside the control of the CAFO, should it be allowed temporary approval.

Based on comments, EPA reevaluated the usefulness of the 180-day temporary approval. In light of the comments, EPA recognizes that such an approach may be problematic for both industry and permitting authorities. Some industry commenters stated that the 180-day grace period would be meaningless because no operator would employ expensive changes without knowing if they would be approved. States commented that any permit modification must be approved before it is implemented. There is no requirement precluding operators from purchasing new land; rather, practices on the land cannot be employed until approved by the permitting authority. Further, EPA encourages operators to take advantage of the exception for substantial changes relating to the addition of new land application areas provided in § 122.42(e)(6)(iii)(A). Thus, EPA has not included the proposed 180-day temporary approval period in the final rule.

Under this final rule, when a CAFO submits changes to an NMP to the permitting authority, the Director must determine whether the changes affect the terms of the NMP incorporated into the permit, and if so, whether such changes are substantial. Depending on this determination, the process and timing of modifying a permit will vary. A CAFO owner or operator must remain in compliance with his or her permit and, thus, should work closely with the permitting authority and should initiate this coordination as early as possible. EPA believes that permitting authorities will be sensitive to the needs of CAFOs to make a range of changes to NMPs from time to time and, as a result, will be diligent in reviewing and making determinations regarding such changes.

(g) Annual Reporting Requirements

In the 2006 proposed rule, EPA discussed the use of annual reports to balance greater flexibility for CAFO operators in making cropping decisions with ensuring appropriate permitting authority and public oversight of permit compliance. The preamble solicited comment as to whether the annual report requirements should be modified to require all permitted CAFOs to submit information in their annual reports indicating how the CAFO achieved substantive compliance with the terms of the NMP as set forth in the permit. In the 2008 supplemental proposal, the Agency proposed additional annual reporting requirements for CAFOs that relate to the proposed provisions regarding the terms of the NMP.

In this action, the Agency is establishing additional annual report requirements, in 40 CFR 122.42(e)(4)(viii), mandating all permitted CAFOs to include in their annual reports the actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, and the amount of manure, litter, or process wastewater applied to each field during the previous 12 months. The Agency believes that it is important for the permitting authority to obtain this information on an annual basis in order to ensure that the CAFO has been operating in compliance with the terms of its permit. The annual report will inform the Director and the public how the CAFO has operated, given the flexibility for the terms of the NMP incorporated into the permit.

The Agency is also requiring CAFOs that follow the second (''narrative rate'') approach for describing rates of application in the NMP to submit as part of their annual report the results of all soil testing and concurrent calculations to account for residual nitrogen and phosphorus in the soil, all recalculations, and the new data from which they are derived. The CAFO is required to report the amounts of manure, litter, process wastewater and the amount of chemical fertilizer applied to each field during the preceding 12 months. Together with the total amount of plant available nitrogen and phosphorus from all sources, the information that is required to be included in the annual report provides the information necessary to determine that the CAFO was adhering to the terms of its permit when calculating amounts of manure, litter, and process wastewater to apply.

Many commenters supported the use of additional annual reporting requirements to address either non-substantial changes or all changes to the NMP. States also generally supported such an approach and sought flexibility regarding the content and use of the process to address other changes to the NMP. Another commenter noted that if CAFOs are allowed to provide alternative management scenarios in the original NMP, the CAFO must be required to submit documentation to the Director to specify which practices it is using from the ''menu'' of combinations in its NMP. This would allow the permitting authority and the public to know what practices the CAFO is actually implementing at any given time.

Although EPA recognizes that NMPs may change throughout the period of permit coverage, as discussed above in section III.C.3(e), the annual report requirements are only appropriate for use in addressing implementation of existing NMP provisions and changes to the NMP contemplated through flexibilities built into the NMP during the initial planning process or subsequent modifications in accordance with 40 CFR 122.42(e)(6). Because this rule requires the terms of the NMP to be incorporated as enforceable terms and conditions of the permit, an outcome of the *Waterkeeper* decision, changes to the terms of the NMP constitute changes to the permit and therefore must be processed according to § 122.42(e)(6), as discussed above in section III.C.3(e).

Some commenters expressed concern that CAFOs would be unable to complete more detailed reports and provide the information necessary to document changes to the NMP, and that some of the reporting requirements would be redundant. Some commenters also believed that reporting crop yields would be overly intrusive and would not be representative of the NMP effectiveness. In this rule, EPA has modified the content of the annual report to supplement the existing annual report requirements promulgated in 2003 so as to allow the public and the permitting authority to review whether the CAFO has implemented the NMP in accordance with the terms and conditions of its permit. This approach balances the recognized need to provide additional flexibility and the need for CAFOs to provide information concerning actual rates of application. The additional information required in this final rule is a limited burden on both the CAFO and the permitting authority that will provide public access

to information about NMP implementation throughout the period of permit coverage. For example, crop yield goals are a critical factor in developing rates of application. Other commenters expressed concern that facilities might overstate crop yields goals. As previously mentioned, by making information about actual crop yields public, both the Director and the public will have better information when evaluating NMPs for subsequent permit coverage.

(h) EPA Nutrient Management Plan Template

As described in the 2006 proposed rule, EPA developed a draft template, made available in the rulemaking public record for public comments, which could be used as a voluntary tool to facilitate completion of the NMP by CAFO permit applicants, as well as to facilitate review by the permitting authority. As discussed in the proposed rule, EPA believed that such a template would help to systematically organize the information necessary to satisfy the NMP requirements in the regulation. Some commenters supported the concept of a voluntary NMP template and considered the draft template an excellent user-friendly model. Other commenters disagreed, stating that the detailed information required in the draft template would be quickly outdated. Other comments received on the NMP template include the following:

- A ''one size fits all'' template does not lend itself well to the different climates and terrains across the country, and use of the template should not be required by the regulation;
- The draft template lacked specific information to ensure that CAFOs are meeting technical standards and the ELGs;
- The draft template was too long and appeared to be more of an inspection checklist than a basic guideline;
- A concern that some States may actually adopt the template, once completed, as the required NMP format;
- The template could be a valuable tool to clearly differentiate between the terms of the NMP, for purposes of incorporation into the permit, and the background information;
- The template would be more beneficial if it is standardized through the use of a computer program which allows ease and flexibility in making changes to the NMP; and
- The template could be useful to an unpermitted CAFO to identify land application practices needed to qualify for the agricultural stormwater exemption.

States generally agreed with the concept of using a consistent, stable template but wanted assurance that it is strictly a voluntary tool and can be modified to better address specific State requirements. Additionally, commenters stated that the draft template failed to address all of the regulatory requirements and should be modified accordingly by including additional technical portions. Other commenters suggested that a template would unnecessarily micromanage the structure or content of NMPs and that States should have the responsibility to define effective nutrient management strategies. Other commenters mentioned the need to keep the template flexible because NMPs are dynamic documents that change rapidly, and a plan that is too detailed will bind the producer to practices that, if altered, would require costly revisions and reviews. A few commenters also indicated that the format and sequence for providing information within the draft template was disjointed and inconsistent with the nutrient management planning process. Other State commenters did offer, however, that the template may be adequate for most public participation processes.

After considering public comments, EPA, in coordination with USDA, has decided not to utilize the draft template. Instead, the two agencies have worked on the development of a planning tool that would generate a single document that meets the objectives of both agencies. The one document would include the required elements of an NMP as well as the elements of a voluntary comprehensive nutrient management plan (CNMP) developed in accordance with USDA technical guidance. A CNMP is a plan much like the NMP required by EPA's CAFO regulations. There are some minor differences between the scope of the two documents, such as a CNMP option to include feed management plans (which are not required for the NMP) and an NMP requirement to include chemical handling plans (which are not part of a CNMP). However, the EPA and USDA agree that there is no reason why one document could not suffice for both the CNMP and NMP by accommodating both agencies' requirements. To that end, EPA, in partnership with USDA, is in the process of coordinating the information necessary to complete an NMP as well as a CNMP and developing a software program that could integrate both sets of planning requirements, known as Manure Management Planner (MMP). Of course, even though both agencies would promote the use of a single tool, it would remain the CAFO operator's responsibility to provide that information to the Director in order to meet the requirements of this rule, inasmuch as USDA does not make facility-specific information available to other agencies or the public. EPA will encourage the use of the MMP to facilitate the development and review of NMPs under the NPDES permit program.

The MMP software, under development by a grant from EPA and USDA to Purdue University, is a computer program that would provide permitting authorities and producers with a mix of programs, not currently available elsewhere, to assist in CNMP and/or NMP development. The objective of this effort is to accelerate the CNMP and NMP development process by integrating other software programs used to calculate manure application rates. Among these technologies are RUSLE II, the Phosphorus Index (PI), and other State-specific risk assessment tools used in CNMP and NMP development. In the longer term it is planned that additional integration will be achieved with planning, recordkeeping technologies and connectivity to the USDA Customer Service Toolkit. The MMP program incorporates field-specific data tables that allow the producer to list the type of crops planned, crop rotation by planting season, nutrients available for each crop based on previous manure applications, and the rate of application per crop. These data tables could provide permitting authorities with specific information that could be extracted as terms of the NMP that would be inserted into a permit. It also provides producers the flexibility to comply with the optional approach of calculating application rates as pounds of nutrients by developing tables with expanded crop contingency plans and related application rates. See section III.C.3(c) for detailed discussion of nutrient management plan terms.

EPA and USDA anticipate that the MMP software can eventually be tailored to all individual State technical standards, requirements and circumstances. At present, the program has been tailored to approximately 34 States, and is available and ready for use in those States. EPA and USDA plan on updating and improving the MMP software and tailoring it to other States.

When completed, the MMP software will be a user-friendly program available without charge. It is strictly a voluntary tool. There may be some situations at a livestock operation, such as varying terrains and unusual cropping sequences, which the MMP cannot

accommodate; thus the program may not, at present, be a good fit for all operators. Permitting authorities and producers may still choose to use an established State NMP software program or other technical standards methods to develop and implement their NMP. More information on MMP can be found at the Purdue University Web site, *http://www.agry.purdue.edu/mmp/*.

EPA and USDA are also developing a national nutrient management planning course that will cover how to develop, review, and implement an NMP and how to use the MMP software program.

D. Compliance Dates

Following issuance of this rule, authorized States have up to one year to revise, as necessary, their NPDES regulations to adopt the requirements of this rule, or two years if statutory changes are needed, as provided in 40 CFR 123.62. States are not required to adopt the provisions for no discharge certification in this time period.

As discussed above in section II.E, EPA has twice extended certain compliance dates originally established in the 2003 CAFO rule. Following the Second Circuit Court's decision in *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486 (2d Cir. 2005), the Agency extended dates for newly defined CAFOs to seek permit coverage and for all permitted CAFOs to develop and implement NMPs to July 31, 2007. 71 FR 6978 (February 10, 2006) (hereinafter the ''2006 date change rule'').

The 2006 proposed rule did not anticipate a need to revise the July 31, 2007, compliance dates established by the 2006 date change rule. However, as a result of an array of public comment on the issues raised by the *Waterkeeper* decision, EPA was unable to complete this final rule prior to July 31, 2007. EPA published a second revision of the compliance dates on July 24, 2007, extending the dates from July 31, 2007, to February 27, 2009. 72 FR 40,245 (July 24, 2007) (hereinafter the ''2007 date change rule''). The 2007 date change rule does not affect the applicable time for seeking permit coverage for existing facilities defined as CAFOs prior to the 2003 CAFO rule, nor does it apply to newly constructed CAFOs not subject to new source performance standards (NSPS) or to new source CAFOs subject to NSPS that discharge or propose to discharge. The February 27, 2009, compliance dates also do not affect the approximately 9,000 CAFOs currently covered under existing permits. Furthermore, for Large CAFOs that are new sources (*i.e.*, those commencing construction after the effective date of the 2003 CAFO rule) and are required to seek permit coverage under the revised duty to apply provision in this rule (40 CFR 122.23(d)(1)), the land application requirements at 40 CFR 412.4(c) apply immediately because new sources are subject to the NSPS under 40 CFR 412.35 and 412.46, which do not include a delayed date for new sources to come into compliance with § 412.4(c). The 2003 rule did not delay compliance with the land application requirements for new sources. *See* CWA section 306(e).

EPA received comments on the 2006 proposed rule related to the July 31, 2007, compliance dates in place at that time. The comments received generally focused on two issues: (1) That the permit application date did not allow enough time for States to revise their permitting programs, and (2) that the date did not allow CAFO operators sufficient time to develop permit applications and NMPs. Many commenters stated that it would not be possible for CAFOs to seek coverage under an NPDES permit by July 31, 2007, and that the deadline should be extended. A number of extension periods were suggested ranging from several months to up to two years after promulgation of the final rule. Rationales for extending the dates included the need to allow States to revise their programs to fully reflect CAFO regulations (which, in turn, allows CAFOs to know what requirements apply to them), limited technical assistance, and the need for adequate time to develop an NMP in the period between rule promulgation and the deadline for seeking permit coverage. Commenters asserted that CAFO owners and operators cannot know the precise requirements for NMPs, or the associated documentation and public participation requirements, until the rule is final. EPA promulgated the 2007 date change rule with these comments in mind.

In the 2008 supplemental proposal (73 FR 12,336) EPA solicited comments on its intention to not extend the compliance deadlines beyond February 27, 2009. Some commenters stated that the deadline should be extended in order to allow States to adapt their existing programs. Others noted that more time would be needed for CAFO owners and operators to implement such complex rules and come into compliance. A number of extension periods were suggested ranging from several months to up to two years after promulgation of the final rule. Commenters were opposed to an extension of the deadlines; did not want to further delay the environmental benefits; and noted that an extension would provide a comparative advantage to those CAFOs that have not made capital improvements and promote interstate discrepancies that undermine the integrity of State CAFO programs.

In this final rule, EPA is not extending the February 27, 2009, compliance deadlines. EPA believes that the time between publication of this final rule and February 27, 2009, is adequate for unpermitted CAFOs that discharge or propose to discharge to develop an NMP and seek permit coverage. EPA notes that most of the technical provisions of the 2003 CAFO rule (*e.g.*, the substantive NMP requirements) were unaffected by the *Waterkeeper* decision, and therefore CAFOs have already had the information they need to develop NMPs and have not needed to wait for further EPA action before doing so. In States where general permits have been issued and have not expired, eligible CAFOs may seek permit coverage under applicable existing general permits. Where general permits are not available, CAFOs may seek permit coverage by submitting an individual permit application. As mentioned above, 40 CFR 123.62(e) provides that States will have one year from the promulgation date of this final rule, or two years if statutory changes are needed, to adopt the requirements of this final rule. During this interim period, EPA expects States to issue permits that comply with all technical requirements of the 2003 rule that were unaffected by the *Waterkeeper* decision and, absent regulatory or statutory barriers, to provide for NMP submission, public review of NMPs, and incorporation of the NMP terms into the permit. EPA is committed to working with States to implement CAFO permitting requirements.

The CWA does not allow any CAFO to discharge without a permit, regardless of whether a permit application has been submitted. EPA and States have a range of tools to help regulated entities come into compliance with new rules including outreach, compliance assistance, compliance incentives and compliance monitoring. For new rules EPA generally focuses on outreach initially. Where EPA becomes aware of particular instances of noncompliance, EPA may pursue appropriate enforcement. Since 2005, EPA has designated unpermitted CAFOs subject to the 1976 rule as an enforcement priority and continues to focus its efforts on those facilities. With respect to CAFOs subject to permitting as of February 27, 2009, EPA would take into consideration whether a permit application has been submitted and whether the entity is operating in

accordance with its NMP and all other applicable requirements of the 2003 CAFO rule and this final rule.

E. Water Quality-Based Effluent Limitations

Water quality-based effluent limitations (WQBELs) are one of two fundamental types of limitations imposed in NPDES permits. The other is technology-based effluent limitations. NPDES permits are required to contain technology-based limitations and, if the technology-based limitations are insufficient to meet applicable water quality standards, more stringent water quality-based effluent limitations (WQBELs). CWA section 301(b)(1)(C), 33 U.S.C. 1311(b)(1)(C); and 40 CFR 122.44(d). While technology-based limitations are calculated taking into account the availability or effectiveness of treatment technologies and/or their associated costs, WQBELs are established without consideration of availability or effectiveness of treatment technologies or the costs that discharges would incur to meet such limits. *Arkansas* v. *Oklahoma*, 503 U.S. 91 (1992); *Westvaco* v. *EPA*, 899 F.2d 1383 (4th Cir. 1990).

The environmental petitioners challenged the 2003 rule as violating both the CWA and the Administrative Procedure Act by failing to promulgate WQBELs for CAFO discharges and by being ambiguous as to whether States may promulgate WQBELs for CAFO discharges. As explained in II.C.3 above, the *Waterkeeper* Court agreed in part with petitioners, and remanded the rule for clarification regarding the applicability of WQBELs for CAFO discharges that are not exempt as agricultural stormwater, to explain why EPA justified its decision not to promulgate WQBELs for discharges other than agricultural stormwater, and to clarify whether the CAFO rule bars States from requiring WQBELs for such discharges. *Waterkeeper Alliance et al.* v. *EPA*, 399 F.3d 486, 522–524 (2d Cir. 2005).

As EPA stated in the preamble to the 2006 proposed rule, the only issue that EPA addressed in the 2003 rule with respect to WQBELs was their applicability to agricultural stormwater discharges. EPA had explained in 2003 that, because agricultural stormwater discharges are not point source discharges, agricultural stormwater discharges cannot be subject to NPDES permit requirements, including either technology-based limitations or WQBELs if technology-based limitations are insufficient to meet applicable water quality standards. The Second Circuit Court of Appeals agreed with EPA. However, the court seemed troubled by certain statements in the 2003 preamble that it thought might address how WQBELs apply to other CAFO discharges. The court therefore remanded the question of whether or not, and why, WQBELs are needed to assure attainment or maintenance of water quality standards as provided in section 302(a) of the CWA.

In the preamble to the 2006 proposed rule, EPA responded to the remand by clarifying that discharges from CAFOs that are not exempt from CWA permitting requirements as agricultural stormwater discharges are subject to NPDES requirements, including WQBELs. EPA clarified the applicability of WQBELs both with respect to land application areas under the control of a CAFO and with respect to discharges from a CAFO's production area.

1. Discharges From Land Application Areas

As explained in section III.B. above, under the 2003 rule, the agricultural stormwater discharge exemption applies only to precipitation-related discharges from land application areas under the control of the CAFO where application of manure, litter, or process wastewater is in accordance with appropriate nutrient management practices as specified in 40 CFR 122.42(e)(1)(vi)–(ix). Any other discharge from land application areas under the control of a CAFO is a point source discharge from the CAFO. 40 CFR 122.23(e). These point source discharges from land application areas are subject to NPDES permitting requirements, including WQBELs where necessary to meet applicable water quality standards.

In most instances, a CAFO that meets technology-based permit limits requiring manure to be applied at appropriate agronomic rates will eliminate all or most dry weather discharges. If such discharges remain, the permit writer will determine the need for additional WQBELs to meet applicable water quality standards based on the circumstances of each particular case.

Although EPA, in the 2003 rule preamble, encouraged States to address water quality protection issues in setting technical standards for appropriate land application practices (*see Waterkeeper*, 399 F.3d at 523, citing 68 FR 7198), EPA did not intend to change the basic regulatory scheme of the NPDES program. With respect to wet weather discharges, under 40 CFR 122.42(e)(1), the permit must already include effluent limitations defining the ''site-specific nutrient management practices'' required to be implemented under § 122.23(e) in order for the remaining wet weather (''precipitation-related'') discharges to be ''agricultural stormwater discharges.'' As previously explained, agricultural stormwater discharges are exempt from the definition of ''point source'' of section 502 of the CWA and are therefore not subject to permitting requirements under the CWA, including WQBELS. Thus, any precipitation-related discharge from land application areas remaining after compliance with the technology-based effluent limitations and permit conditions required pursuant to § 122.42(e)(1)(vi)–(ix) are exempt from CWA permitting requirements as agricultural stormwater, and these technology-based effluent limitations constitute the entirety of the federal NPDES permit requirements with respect to land application of manure, litter, and process wastewater. However, it is possible that a State may have additional requirements under its own State regulatory authorities that would go beyond the scope of the federal NPDES program. Thus, such agricultural stormwater discharges, though not subject to federal NPDES regulation, could be subject to additional State requirements, including additional requirements related to water quality. 33 U.S.C. 1370 and 40 CFR 123.1 and 123.25. These requirements, however, would not be viewed as WQBELs as that term is used under the CWA. Nor would these State-law requirements be federally enforceable. 40 CFR 123.1(i)(2).

2. Production Area Discharges

EPA also explained in the preamble to the 2006 proposed rule that permit writers may require WQBELs in appropriate cases to further limit discharges from CAFO production areas. As EPA stated in the 2003 rule, the exclusion for agricultural stormwater does not apply to discharges from the CAFO production area. 40 CFR 122.23(e) and 68 FR 7198. Because the ELGs allow occasional overflow discharges from properly designed, operated, and maintained lagoons and storage ponds, the technology-based limitations in the ELGs may not be as stringent as necessary to meet applicable water quality standards. In that case, a WQBEL would be appropriate. 40 CFR 122.44(d). For example, a facility subject to ELGs in 40 CFR part 412, subpart C is allowed to discharge from the production area, provided the production area is designed, constructed, operated, and maintained to contain all process wastewater plus any stormwater runoff resulting from the 25-year, 24-hour

storm. Thus, WQBELs would be necessary in a particular permit to further limit such discharges beyond the levels that are required under the CAFO ELGs, if necessary for the discharge to meet applicable water quality standards.

In the preamble to the 2006 proposed rule, EPA indicated that for CAFOs in the swine and poultry sectors subject to New Source Performance Standards (NSPS) in part 412, subpart D, permits could not require WQBELs for production areas, because the NSPS already prohibit all production area discharges from these new sources. 71 FR 37,744, citing 40 CFR 412.46(a). Some commenters, however, urged EPA to reconsider its position given a possibility of a discharge even from CAFOs subject to a no discharge standard. Nothing in this rule limits the Director's authority to include any more stringent limitation than the NSPS in a CAFO's permit when necessary to meet applicable water quality standards pursuant to CWA section 301(b)(1)(C). Nonetheless, EPA continues to believe that WQBELs would not be needed for swine and poultry CAFOs subject to the no discharge NSPS. The provisions for implementing the NSPS BMP-based effluent limitation, based on advanced modeling, are meant to improve implementation of this provision by promoting up-front design, construction, operation, and maintenance to ensure that predictable discharges do not occur. Permitting authorities have full authority and responsibility to determine if the facility's demonstration is adequate. Therefore, as a practical matter, EPA finds it difficult to imagine circumstances in which such a limitation would be necessary for permitted CAFOs subject to this NSPS no discharge standard.

F. New Source Performance Standards for Subpart D Facilities

This action responds to the Second Circuit's remand of certain aspects of the 2003 New Source Performance Standards (NSPS). First, EPA has deleted the remanded provisions that authorized two alternatives for compliance with the NSPS requirement for no discharge of manure, litter, or process wastewater into waters of the U.S. from the production area. Second, EPA is promulgating a new provision that would allow a CAFO using an open surface manure storage structure to request the NDPES permitting authority to establish site-specific effluent limitations for its NPDES permit that incorporate the NSPS no discharge requirement. These best management practices effluent limitations include design specifications and operational parameters and must be based on a technical evaluation of the adequacy of the CAFO's storage structure for achieving no discharge of manure, litter, or process wastewater into waters of the U.S. The new provision prescribes in detail the elements of that technical evaluation. A facility designed, constructed, operated, and maintained in accordance with these effluent limitations will meet the NSPS requirement for no discharge.

This provision will have several positive ancillary effects. Some CAFOs may be reluctant to use innovative technologies that incorporate open storage as part of their manure management system in view of the no discharge requirements of Subpart D. This provision creates an incentive for the use of innovative technologies to meet the no discharge requirement by providing an up-front determination that the CAFO will meet the no discharge requirement prior to potentially expensive construction. Second, in the case of new source Subpart D CAFOs that do apply for a permit, this provision provides for an up-front determination subject to public participation as part of the permitting proceeding, that the CAFO will meet the no discharge requirement. Finally, because facilities subject to no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. may choose not to obtain a permit, and therefore are not eligible for upset and bypass defenses, the protection afforded by this provision provides an incentive for CAFOs to obtain a permit.

1. Background

The 2003 CAFO rule established NSPS for swine, poultry, and veal calf CAFOs as ''no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area.'' The rule provided two compliance alternatives that allowed a CAFO in these categories to meet this requirement by showing that either (1) its production area was designed, constructed, operated, and maintained to contain all manure, litter, or process wastewater, and precipitation from the 100-year, 24-hour storm, or (2) it would comply with ''voluntary superior environmental performance standards'' based on innovative technologies. The ''voluntary superior environmental performance standards'' provision would allow a discharge from the production area if the discharge was accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media (*e.g.*, air emissions).

The Second Circuit Court of Appeals remanded aspects of the NSPS to the Agency, holding that there was not adequate support in the record for the alternative standards. Specifically, the court directed EPA to clarify the statutory and evidentiary basis for allowing CAFOs to comply with a no discharge NSPS through either a production area containment structure or an alternate performance standard. With respect to the 100-year storm standard, the court noted that while certain studies showed that production area BMPs would have substantially prevented the production area discharges documented in the record, substantially preventing discharges is not the same as no discharge. With respect to the alternative performance standards, the court held that EPA had not justified its decision to allow compliance with the no discharge standard through an alternative standard that permits production area discharges so long as the aggregate pollution to all media is equivalent to or lower than that resulting from the baseline standards. The court further held that EPA did not provide adequate notice for either of these provisions under the CWA's public participation requirements. *See* 33 U.S.C. 1251(e) (public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States).

2. This Final Rule

This final rule makes the following changes to the 2003 NSPS in subpart D. First, EPA is deleting 40 CFR 412.46(a)(1) that allowed subpart D CAFOs subject to NSPS to meet the no discharge standard through the use of a 100-year, 24-hour rain event containment structure. In a conforming change, EPA is also modifying 40 CFR 412.37(a)(2) to remove the reference to such structures from § 412.37(a)(2). EPA is, however, retaining the requirement in § 412.37(a)(2) that all open surface liquid impoundments have a depth marker. The land application requirements for new sources remain unchanged.

The record for the 2003 NSPS showed that new facilities routinely include systems and employ practices that result in no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production areas. Based on this information, EPA determined that a no discharge standard represented the best available

demonstrated control technology for new sources. EPA now recognizes that a system that is properly designed, constructed, operated, and maintained to contain precipitation from the 100-year, 24-hour event may still discharge as a result of multiple unusual and severe precipitation events. Given the record information, EPA now agrees that a system designed, constructed, operated, and maintained to contain precipitation from the 100-year, 24-hour storm event is not necessarily equivalent to no discharge and has consequently deleted this provision.

Second, EPA is deleting 40 CFR 412.46(d) to remove the alternative voluntary superior performance NSPS for new swine, poultry, and veal calf sources in light of the Second Circuit Court of Appeals ruling.

Third, EPA is promulgating a new provision that authorizes the permitting authority to develop a site-specific, no discharge NSPS for new CAFO's using open storage containment structures. Thus, this rule provides that the NPDES Program Director may establish no discharge best management practice effluent limitations based upon a site-specific evaluation for an individual CAFO. CAFOs may request permit writers to establish no discharge best management practice effluent limitations on a case-by-case basis when the facility demonstrates through a rigorous modeling analysis that it has designed a containment system that will comply with the no discharge requirement. After such site-specific standards are established, a facility will be in compliance with the no discharge requirement if its containment system has complied with all of the specified site-specific design, construction, operation, and maintenance components of such a system demonstrated to meet the no discharge requirement.

3. EPA's Decision To Authorize Site-Specific, No Discharge Effluent Limitations

In its 2006 proposal, EPA proposed an alternative no discharge requirement that would authorize the NPDES Program Director to establish no discharge, BMP effluent limitations based upon a site-specific evaluation for an individual CAFO. A complete discussion of the proposal may be found at 71 FR 37,760–62. Such limitations would provide an alternate approach for CAFOs to meet the no discharge requirement through limitations designed to ensure no discharge of manure, litter, or process wastewater pollutants into waters of the U.S.

Specifically, EPA proposed to authorize permit writers, upon request by a CAFO, to establish no discharge BMP effluent limitations on a case-by-case basis when a facility demonstrated through a rigorous modeling analysis that it could design, construct, operate, and maintain an open containment system that would comply with the no discharge requirement. When a facility complied with all of the site-specific design, construction, operation, and maintenance components of such a system—all of which are conditions of its permit—the CAFO would be deemed to be in compliance with the no discharge requirement even in the event of an unanticipated discharge. EPA is promulgating the provision in essentially the same form as it was proposed.

Commenters raised a number of concerns with this provision. Commenters asserted that the alternative provision creates an exception to the no discharge requirement. Some commenters viewed the modeling exercise as an ineffective substitute for meeting effluent limitations. Commenters also questioned the enforceability of the alternative provision if a new source would have a discharge.

A number of reasons support EPA's decision to promulgate this provision and should allay commenters' concerns. First, the alternative provision requires a CAFO to demonstrate to the satisfaction of the permitting authority, after public notice and comment on the demonstration, that its open storage system is a no discharge system. In order for a new CAFO employing an open storage system to obtain no discharge BMP effluent limitations, the CAFO must demonstrate that the entirety of its operation including its production area, site-specific NMP and other best management practices are designed to ensure no discharge from the entire CAFO. Because this demonstration must be based on the use of a prescribed model and precipitation data for 100 years, any showing of no discharge will necessarily account for a wide range of circumstances. Given the stringency of the required modeling exercise, described more fully below, a successful no discharge demonstration means that the site-specific limitations, in fact, are equivalent to a no discharge requirement. Moreover, because this demonstration will be subject to public participation requirements that apply to any permitting proceeding, commenters are assured that there will be an opportunity for public review of the assumptions used to support the no discharge conclusion. Further, the final determination will also be subject to judicial review as would be the case with any other final permit decision.

Second, the argument that site-specific no discharge limitations are not true no discharge limitations reflects a fundamental misunderstanding on commenters' part. Commenters fail to recognize that the provision allowing site-specific, no discharge effluent limitations essentially places a CAFO with such limitations in the same position as a CAFO without such limitations. Commenters have apparently forgotten that, even in the absence of a provision like that promulgated today, permitted facilities that are subject to no discharge effluent limitations may discharge and not be subject to an enforcement action (or have a defense to any enforcement action) in certain uncontrollable and unforeseeable circumstances. The 2003 CAFO rule specifically provided for the availability of an upset/bypass defense from an enforcement action. *See* 40 CFR 412.47(a)(3) (''Provisions for upset/bypass as provided in 40 CFR 122.41(m)–(n) apply to a new source subject to this provision.'').

Thus, EPA NPDES regulations currently would provide a defense to an enforcement action, albeit in severely restricted circumstances, for discharges from any permitted new source CAFO. Under the 2003 rule, ''no discharge'' for those facilities, in fact, means no discharge except in certain narrowly prescribed circumstances. The demonstration required under this rule to support the establishment of alternative site-specific no discharge limitations is designed to show that there will be no discharge from the CAFO except in exactly the circumstances provided in EPA's upset/bypass regulations and described under the 2003 rule.

Under EPA's regulations, an ''upset'' is defined as ''an unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee.'' 40 CFR 122.41(n). Under the regulations, the upset defense to an enforcement action would not be available to the extent that the noncompliance with permit conditions was due to operational error, an improperly designed treatment system, inadequate treatment system, improper maintenance or careless and improper operation. 40 CFR 122.41(n)(1).

This rule adopts requirements for an upfront demonstration that parallel the conditions under which an upset/bypass defense would be available in the event of a discharge from a no

discharge facility. It provides that, before a permit writer may establish site-specific limitations, the permittee must demonstrate through a rigorous modeling exercise that its open containment system would not discharge. Given the requirement for evaluation of the system's adequacy (size, operational practices, maintenance conditions and other factors) using precipitation data for 100 years, such an assessment would support the conclusion that any discharge that might occur results from ''factors beyond the reasonable control of the permittee,'' the conditions under which the upset/bypass defense would be available. Moreover, as noted, all of the design, construction, operation, and maintenance components evaluated for the site-specific permit become permit conditions. This similarly mirrors the provisions of the upset regulations which do provide for a defense only in the limited circumstances outlined in § 122.41(n)(1), *e.g.*, no operational error, improper design, or other factors as described above. As a consequence, this alternative NSPS provision requires an upfront determination that the CAFO would only discharge in circumstances that would parallel those for which an upset/bypass defense would be available.

This final rule's new NSPS provision allowing site-specific BMP effluent limitations gives the CAFO complying with its permit conditions more certainty that its operations meet its CWA requirements. The permitting process has already established that the discharge is unintentional and beyond the reasonable control of the permittee. Therefore, in the extremely unlikely event of a discharge from a new source that is complying with a permit containing these site-specific no discharge effluent limitations, the CAFO would already have established in the permitting process an affirmative defense with respect to any discharge, and would not need to rely on § 122.41(n).

Establishment of these no discharge, BMP effluent limitations represents a determination by the permit writer that the CAFO will not discharge. The only time a CAFO under this provision could potentially discharge would be in an extreme, rare event not reasonably foreseeable or under the reasonable control of CAFO as demonstrated in the permitting process and explained above.

Fourth, while site-specific BMP effluent limitations provide greater certainty to CAFOs, they also provide the permitting authority and citizens more specific measures of compliance than is the case for CAFOs without such permit conditions. Unlike a CAFO that does not discharge or propose to discharge and therefore chooses not to seek permit coverage, a CAFO relying on site-specific BMP effluent limitations would have a permit and permit terms that include the design, construction, operation, and maintenance measures that formed the basis for the permitting authority's determination that the CAFO will meet no discharge. Because the elements demonstrating no discharge are permit conditions established in a process that provides for public participation and on-going oversight, use of this alternative should further ensure compliance with the no discharge requirements.

So long as the facility complies with its BMP effluent limitations (and other terms of the permit such as monitoring or recordkeeping requirements), the CAFO will not be subject to enforcement action. EPA underscores for the regulated community that the protections afforded by this provision are only available through permits issued to new source CAFOs. EPA further wishes to emphasize that the more general upset and bypass regulations are only available to permitted CAFOs, and are otherwise unaffected by this NSPS provision.

Finally, policy considerations support the Agency's adoption of an alternative no discharge approach. EPA encourages CAFOs to implement anaerobic digesters, multi-cell treatment lagoons, and nitrification/denitrification technologies. In addition, EPA wants to encourage the development of innovative technologies for meeting the no discharge requirement. To do this, CAFOs want certainty that the technologies they develop and implement will comply with the CWA. EPA recognizes that the upset and bypass provisions do not provide certainty to the operator that any discharge will be excused. In particular, CAFOs operating innovative or advanced technologies may be reluctant to rely on the standard upset and bypass provisions. Under the regulation adopted here, an operator must demonstrate to the permitting authority's satisfaction, after public comment, that an innovative approach that includes an open storage system will be designed, constructed, operated, and maintained to achieve no discharge. This demonstration would mean that this CAFO would not discharge, except during an event beyond the CAFO's reasonable control; an event that could be excused under the normal upset provisions. Once this demonstration has been made, it makes sense to provide the CAFO with the certainty that would eliminate the need for the CAFO to go through the upset/bypass process in most circumstances.

In addition, this approach is consistent with CWA section 101(f), requiring EPA to use efficient procedures for decision-making. Because of this provision, in the rare occurrence of a catastrophic event, this provision would relieve permitting authorities and CAFOs from the typical procedures necessary to meet the upset/bypass requirements.

4. Discussion of the New Provisions

The CAFO NSPS provisions adopted today require an evaluation of the adequacy of the designed storage facility using the AWM (Animal Waste Management) tool and an evaluation of overall water budgets using SPAW (Soil Plant Air Water) Field and Pond Hydrology Tool, or equivalent analytic tools. EPA has concluded that 100 years of climate data is an ample time frame for simulation purposes and will support a reasonable finding that the system will not discharge. However, EPA is aware that 100 years of continuous rainfall data may not be available for all CAFOs. Models can be run using actual rainfall data where available, and then simulated with a confidence interval analysis over a period of 100 years.[6]

AWM is a planning and design tool for animal feeding operations that can be used to estimate the production of manure, bedding, and process water, and thus determine the size of needed storage facilities. AWM accounts for wastewater, flush water, precipitation, runoff, and other additions to the waste stream. AWM can estimate storage facility sizes using either a defined storage period or by drawdown dates specified by the user. A monthly water and waste budget for each storage component is generated, in most cases allowing the CAFO to demonstrate no discharge from the entire production area. The procedures and calculations used in AWM are based on the USDA–NRCS Agricultural Waste Management Field Handbook.

The SPAW model consists of two linked routines. The first routine develops field hydrologic budgets based upon daily climatic data, crop data, and hydraulic characteristics of the soil profile. The second routine utilizes the

[6] Some commenters confused the 100-year simulation analysis with the requirement in the 2003 final CAFO rule for a system designed to contain the precipitation associated with the 100-year, 24-hour storm design event. Neither the proposed revisions nor these final requirements for new sources subject to subpart D refer to the 100-year storm event.

climatic and hydrologic outputs of one or more farm fields as the input to hydrologic budgets for downstream ponds. These daily pond water budgets can be used to evaluate the performance, operation or reliability for many types of ponds such as liquid waste storage facilities. Water budget processes may be evaluated by making daily adjustments to crop canopy cover and antecedent soil moisture. For each user-specified soil profile and crop rotation, SPAW simulates possible runoff from fields as well as the irrigation water needs of fields receiving the manure storage effluent. Hydrologic groups are used by the model to rate soils for the potential to release excess water down grade.

AWM tracks gross nutrients, but does not track the mass or concentration of nutrients. Further, the storage period or drawdown schedule is usually determined by the individual CAFO. Therefore, the CAFO's NMP must be used as an input to confirm both a water balance and a nutrient balance has been achieved by the CAFO. The NSPS provisions require that each CAFO use the SPAW tool to assess daily hydrologic budgets for each field. The complete modeling demonstration shows not only that the storage facility does not discharge, but also that there is no runoff of process wastewater from fields during land application activities consistent with the CAFO's NMP, which is necessary to ensure that the open containment system is operated in a way to meet the land application requirements of the rule. In EPA's view, the requirement to use the SPAW model (or an equivalent approved by the permitting authority) ensures CAFOs will rely on appropriate operational measures to achieve no discharge standards.

The CAFO NSPS provisions require certain specified information regarding design, construction, operation, and maintenance of the system to be included in the CAFO's NMP under 40 CFR 122.42(e)(1). This includes the key user-defined inputs and model system parameters. CAFOs must submit a site-specific analysis to the Director. See 40 CFR 412.46(a)(1). These site-specific design, construction, operation, and maintenance measures are enforceable requirements in the CAFO's permit. As long as the CAFO complies with these requirements, the CAFO presumptively meets the no discharge requirement. EPA has determined that the final rule revisions provide a clear and enforceable standard for the CAFO to achieve as well as providing assurance to the public that the proposed system complies with the no discharge requirement.

Under these final amendments to the NSPS, the Director has the discretion to require additional information from a new source subpart D CAFO owner or operator to support site-specific BMP effluent limitations. The burden is on the CAFO to demonstrate that any proposed system it employs, including an open system, meets the new source standard. EPA expects CAFOs will utilize the most current version of AWM and SPAW when submitting their demonstration to the permitting authority. However, EPA is aware that other peer-reviewed models and programs have been or may be developed that could be determined to be equivalent to AWM and SPAW. Therefore the rule gives the Director the discretion to approve design software or procedures equivalent to AWM and SPAW. Once approved by the Director, the public still would have the opportunity to comment on the CAFO's submitted modeling and demonstration as discussed earlier.

The information, design, and evaluation process required of all CAFOs wishing to avail themselves of this alternative is intended to allow CAFOs the flexibility to demonstrate compliance with the no discharge requirements for any type of open storage facility. As a practical consideration, EPA expects most CAFOs selecting this compliance alternative will submit designs for open manure storage structures accompanied by a narrow range of acceptable operation and management practices. However, for a given type of storage facility design (for example, an integrator with several company-owned CAFOs each designed and constructed in an essentially identical manner within the same county), EPA believes it is possible to conduct a series of assessments that together fully encompass the range of operational and management measures that would be used across multiple CAFOs with the specified storage facility design. In this case, SPAW could be run to validate a wide range of NMP and storage pond management scenarios (to continue the above example, the CAFOs all have the same sets of crops, soil types, land application equipment, etc.). This alternative does not change the requirement for a CAFO to develop a site-specific NMP. These final amendments authorize the permitting authority to determine that any CAFO using the specified facility type and submitting an NMP that falls within the pre-approved range of operational and management practices would not need to conduct an individualized assessment step (*i.e.*, the validation using SPAW).

The availability and use of such a geographical and categorical approach will require that the permit writer determine that a number of conditions are met. First, the assessment must fully account for all pertinent factors relevant to determination of the potential for discharge from an open storage system. The assessment must also include all parameters necessary to mirror properly the range of soil, plant, climatic, and hydrological conditions within the geographical area for which the assessment is intended to be representative. Second, the permittee must establish that the parameters reflected in the general assessment used to establish no discharge are, in fact, representative of those parameters for each CAFO. Finally, the assessment must reflect the operational and management practices to be employed by each CAFO at each individual site. As with the individual assessment, each CAFO must have a site-specific NMP that includes the operational and management measures utilized in the geographical assessment.

EPA is eliminating the requirement to indicate the capacity for a 100-year, 24-hour storm for new sources. EPA is maintaining the requirement to have a depth marker for all open storage structures. In EPA's view, a marker indicating the storage pond or containment depth can be an excellent means of displaying how much storage a CAFO has, whether it is time to pump down levels in the lagoon, pond, or other storage structure, or whether alternative management steps must be taken to prevent a full storage structure and potential overflow. Existing sources and new sources subject to subpart C continue to have the requirement for a depth marker that indicates the 25-year, 24-hour storm event. New sources subject to subpart D and using an open storage structure must use the depth marker to indicate the maximum volume of manure and process wastewater the structure is designed to contain.

While one component of preventing discharge from an open system is to provide adequate storage of manure and wastewater during critical periods, ensuring adequate physical capacity is not sufficient. Rather, determining whether there is adequate storage is based on a site-specific evaluation of the CAFO's entire waste handling system. Adequate storage has to be based on climate-specific variables that define the appropriate storage volume, but of equal importance are the nutrient management plan and other

management decisions that specify when and how the storage can be emptied. The link between adequate storage and land application practices is one of the most critical considerations in developing and implementing a site-specific nutrient management plan. For example, the amount of land available for application, the hydraulic limitations (ability of the land to handle additional water without the occurrence of runoff), geology, and soil properties of the available land base can play an important role. See Chapter 2 of EPA's technical guidance for CAFOs ''Managing Manure Nutrients at Concentrated Animal Feeding Operations'' (EPA–821–B–04–00) for more information. EPA expects these criteria preclude a CAFO from withdrawing manure and process wastewater from liquid storage structures and subsequently land applying process wastewater at inappropriate times. Given these considerations, EPA is establishing procedures for approval of site-specific management practices for open containment systems with the expectation that a system can be designed and operated to meet the no discharge standard. EPA has concluded that the design, construction, operation, and maintenance elements and the comprehensive analytical assessment are sufficient to achieve this objective.

G. BCT Limitations for Fecal Coliform

In response to the Second Circuit remand, EPA is today affirmatively finding that the best conventional pollutant control technology (BCT) limitations it adopted in 2003 do, in fact, represent the best conventional control technology limitations for fecal coliform. After assessing various conventional pollutant removal technologies, EPA has determined that there are no available and economically achievable technologies that are cost reasonable that would result in greater removal of fecal coliform than the technologies on which EPA based the 2003 best practicable control technology currently available (BPT) and BCT effluent limitations guidelines (ELG).

As EPA has explained, establishing BCT limitations begins by identifying technology options that provide additional conventional pollutant control beyond the level of control provided by BPT effluent limitations. Any such candidate technologies are then evaluated to determine if they meet the threshold CWA requirements of ''availability'' and ''economic achievability.'' 51 FR 24,974, 24,976; July 9, 1986. A technology is economically achievable if its costs may be ''reasonably borne'' by the CAFOs. *Waterkeeper Alliance et al.* v. *EPA,* 399 F.3d 486, 516 (2d Cir. 2005). The Clean Water Act adds an additional evaluation step to the effluent limitations development process for conventional pollutants. ''In addition to the Clean Water Act requirement that effluent limitations be economically achievable, the cost associated with the BCT effluent limitations must also be 'reasonable' in relation to the effluent pollutant reductions.'' 51 FR 24,974. In determining this, the statute requires that EPA look at a number of factors including a comparison of the cost of effluent reductions for POTWs to that for direct dischargers using candidate BCT technologies. Thus, the statute requires that, not only must the costs of additional control be costs that CAFOs may reasonably bear (economically achievable), but the costs must also be reasonable relative to the costs for POTWs to achieve such conventional pollutant reductions.

EPA evaluated 41 BCT candidate technologies for this rule and determined that all but two of them were either not available (technically feasible for all CAFOs in a subcategory) or not economically achievable. For the remaining two technologies, while their costs are high and EPA believes it likely that they are also not economically achievable, EPA was unable to conduct its traditional tests for economic achievability and thus has not determined in this rule whether or not they are economically achievable. However, EPA has determined that these two technologies, even if economically achievable, would not be cost reasonable, and has therefore rejected them as BCT technologies.

As a result of this assessment, EPA has concluded that there are no available and economically achievable technologies that are cost reasonable that would provide greater fecal coliform removal than the BPT technology. How EPA performed this assessment and the results of that assessment supporting EPA's finding that the 2003 BPT/BCT limitations represent BCT technology for controlling fecal coliform is described in detail below.

1. The *Waterkeeper* Decision

As previously noted, the *Waterkeeper* court remanded the 2003 CAFO rule's BCT standard for further clarification and analysis with regard to the appropriate BCT standard for pathogens.[7] EPA's 2003 rule established non-numeric effluent limitations based on BPT and the best available technology economically achievable (BAT) as well as BCT limitations. In the 2003 CAFO rule, EPA established BPT effluent limitations guidelines for Large beef, dairy, and veal calf (Subpart C), swine and poultry (Subpart D) CAFOs.

At that time, EPA concluded that there were no available BCT technologies on which to base limits for conventional pollutants that were more stringent than the BPT limitations, and EPA therefore established BCT requirements equal to BPT limitations. EPA based this determination in part on the combined pollutant reductions (Table 7.2 of 68 FR 7239), and in particular its evaluation of the reductions in discharges of the conventional pollutants (TSS, BOD, and fecal coliform) associated with the various technology options it considered. 71 FR 37,763. EPA noted difficulties in quantifying the loadings and reductions in discharges of these pollutants—in particular, in assessing fecal coliform—and relied primarily on reductions in sediment discharges as a surrogate for reductions in TSS in reaching its BCT determination. EPA concluded that there were no technologically feasible candidate BCT technologies that would achieve greater TSS removals than the BPT requirements for either Subpart C or Subpart D facilities, and no economically achievable technologies for Subpart C facilities that would reduce discharges of BOD. Consequently, EPA found that there were no BCT technologies for establishing limits on conventional pollutants that would achieve greater removal than the BPT technology and established BCT requirements that were equal to BPT. 68 FR 7224.

While EPA's assessment of the effectiveness of various control options did attempt to measure pathogen reductions for the final rule, EPA did not establish any specific BPT or BCT limitations to control fecal coliform, a conventional pollutant and pathogen. The *Waterkeeper* court remanded the 2003 CAFO rule's BCT standard for further clarification and analysis because EPA had failed to make an affirmative finding that the BCT limitations it had adopted in fact represented the best conventional

[7] As the Second Circuit recognized, the CWA lists only one pathogen, fecal coliform, as a conventional pollutant for which BCT limitations are required. *Waterkeeper,* 399 F.3d at 518. Section 304(a)(4) of the CWA provides that EPA may identify additional pollutants as conventional pollutants. EPA has identified only one additional pollutant, oil and grease as a conventional pollutant. Thus, the only pathogen subject to the Second Circuit remand is fecal coliform.

pollutant control technology for reducing pathogens—specifically, fecal coliform. 399 F.3d at 519. EPA's final rule issued today responds to the court's remand.

As EPA proposed, in this final rule EPA is affirmatively concluding that the current BCT limitations for conventional pollutants represent the best conventional control technology for fecal coliform and is establishing BCT limitations for fecal coliform that are equal to the current BPT/BCT limitations. These limitations prohibit the discharge of manure, litter, or process wastewater into waters of the U.S. from the production areas of CAFO except in limited circumstances. A discharge is allowed only if an existing, permitted CAFO has a properly designed, constructed, and operated storage structure with the capacity to contain all manure, litter, and process wastewater associated with the facility as well as the runoff and direct precipitation from a 25-year, 24-hour rainfall event. *See* 40 CFR 412.31(a). The current rules also provide that a Large CAFO that land applies manure, litter, or process wastewater must do so in accordance with several BMPs: A nutrient management plan that includes the determination of application rates for manure, litter, and process wastewater; a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters; manure and soil sampling; and setback requirements. *See* 40 CFR 412.4. EPA is not promulgating more stringent BCT limitations for fecal coliform because there is no available, achievable, and cost reasonable technology on which to base such limitations.

2. Background

The CWA requires point sources to achieve effluent pollutant levels established by EPA that are attainable through progressively more stringent pollutant control technology. The CWA calls for technology-based control in two stages. As originally enacted in 1972, the Act required existing point sources to comply in the first stage with EPA-established limitations that are achievable by application of the ''best practicable control technology currently available'' or ''BPT.'' These limitations control conventional, toxic, and nonconventional pollutants. EPA has typically based BPT limitations on the average pollutant removal performance of the best facilities examined by EPA. The 1972 Act also required existing point sources to comply in the second stage with EPA-established limitations that are achievable by the application of ''best available technology economically achievable,'' or ''BAT.'' In 1972, these limitations also controlled conventional, toxic and non-conventional pollutants.

The 1977 amendments to the CWA replaced BAT for conventional pollutants with limitations that represent ''best conventional pollutant control technology'' or ''BCT.'' Section 304(a)(4) designates the following as conventional pollutants: Biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform (FC), pH, and any additional pollutants defined by the Administrator as conventional. The Administrator designated oil and grease as an additional conventional pollutant, on July 30, 1979 (44 FR 44,501), but has listed no other pollutants for regulation as conventional pollutants.

The decision to amend section 304(a) of the CWA to require achievement of BCT, rather than BAT, for control of conventional pollutants reflected two factors. The first was Congressional desire not to require ''treatment for treatment's sake'' and the second, Congress's view that BAT control of conventional pollutants might not be necessary to achieve the water quality goals of the Act. S.Rep. No. 370 at 43, 1st Sess. 43 (1977), *reprinted in* Comm. on Env. and Public Works, 95th Cong., 2d Sess., *A Legislative History of the Clean Water Act of 1977* at 676–77 (hereinafter *''Legislative History''*).

The CWA Amendments of 1977 that require EPA to determine BCT limitations also specify the factors to be taken into account in this determination of BCT. Section 304(b)(4)(B) provides that the factors to be assessed:

> [S]hall include consideration of the reasonableness of the relationship between costs of obtaining a reduction in effluents and the effluent reductions benefits derived, and a comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. * * * 33 U.S.C. 1314(b)(4)(B).[8]

In the words of Senator Muskie, the Senate Floor Manager and leading sponsor of the amendments:

> The Administrator must determine whether or not the cost of achieving reductions of conventional effluent bears a reasonable relationship to the amount of effluent reduction achieved. In making this determination, the Administrator is to compare the costs of industrial effluent reduction to the cost of municipal waste treatment. Legislative History at 458.

Accordingly, EPA developed a ''BCT Methodology'' to answer the question of whether it is ''cost-reasonable'' for industry to control two conventional pollutants, BOD (or oil and grease in the case of certain metals industries) and TSS, at a level more stringent than already required by BPT effluent limitations. EPA first explained its BCT methodology when it promulgated BCT effluent guidelines for 41 industry subcategories (44 FR 50,732; August 29, 1979).[9] The crux of the methodology was a comparison of the costs of removing the conventional pollutants BOD (or oil and grease) and TSS for a candidate BCT technology within a particular industry segment, to the costs of removal for an average-sized POTW.

A number of industries and industry associations challenged the regulation, and, in 1981, the U.S. Court of Appeals for the Fourth Circuit remanded it to the Agency, directing EPA to include an assessment of the cost-effectiveness of industry conventional pollutant removal in addition to the POTW test in its evaluation of cost reasonableness. *American Paper Inst.* v. *EPA,* 660 F. 2d 954 (4th Cir. 1981). EPA proposed a revised BCT methodology in 1982 (47 FR 49,176) that addressed the industry cost-effectiveness test (the ''second'' test), again limited to the conventional pollutants BOD and TSS. EPA proposed to base the POTW benchmark on model plant costs in a 1984 notice (49 FR 37,046). The final BCT methodology, promulgated as a rule in 1986 (51 FR 24,974), maintained the basic approach of the 1982 proposed BCT methodology while also updating POTW removal cost with new POTW data. EPA again specifically noted that it had developed

[8] As the Conference Report to the 1977 amendments explained:

> The cost test for conventional pollutants is a new test. It is expected to result in a determination of reasonableness which could be somewhat more than best practicable technology or could be somewhat less than best available technology for other conventional pollutants. The result of the cost test could be a 1984 requirement which is no more than that which would result from best practicable technology but also could result in effluent reductions equal to that required in the application of best available technology. Joint Explanatory Statement of the Committee of Conference, 95th Cong. 1st Sess., H.R. No. 95–830 at 85, *Legislative History* at 269.

[9] As noted above, the 1977 amendments established a second level of technology-based controls for conventional pollutants-BCT limitations. Accordingly, in 1979, pursuant to Congressional direction, EPA completed its review of then-existing BAT limitations for conventional pollutants to determine if they were more stringent than would be required by BCT technology. EPA limited its review to limitations for, and correspondingly developed its BCT methodology to address, only two categories of conventional pollutants: BOD (or oil and grease) and TSS. 44 FR 50,732–33. Noting the industries under consideration do not have fecal coliform discharges, EPA performed no analysis for fecal coliform.

its BCT methodology to evaluate more stringent BOD or TSS limits.

3. EPA's BCT Determination in the 2003 Rule

As previously explained, EPA established BCT requirements equal to BPT in the 2003 CAFO rule (*see* 40 CFR 412.33 and 412.44). For its assessment of BCT limitations, EPA first considered whether there were any technically feasible technologies that would achieve greater conventional pollutants removals than the BPT limitations. Because of the difficulties in quantifying reductions of conventional pollutant discharges,[10] EPA relied primarily on sediment discharges (as a surrogate for TSS) in evaluating potential BCT requirements. EPA identified no BCT technology option that achieves significantly greater TSS removals than the BPT requirements eventually promulgated in 2003 with one exception. This option would have prohibited any discharge from swine and poultry CAFOs. Because this option was not an economically achievable one, EPA therefore concluded that there were no BCT technologies on which to base limits for conventional pollutants that were more stringent than BPT. EPA did note that if it had identified available and economically achievable technology options that achieve greater reductions of conventional pollutants than are achieved by BPT, then EPA would have evaluated these technologies applying EPA's two-part BCT cost test. 68 FR 7224.

EPA also evaluated pathogen reductions associated with the 2003 BPT limitations. The BPT limitations prohibit dry weather discharges from land application areas, and the BPT land application requirements (including technical standards for timing, form, and rate of application, as well as the required vegetated buffer, setback, or equivalent practices) already minimize discharges from land application areas. The BPT production area requirements prohibit discharges, except for overflows from liquid storage structures that meet certain design and operational criteria. EPA used fecal coliform and fecal streptococcus as surrogates to estimate the pathogen reductions achieved by the CAFO rule requirements. EPA concluded that the BPT limitations would reduce these two pathogens by 2.7 x 10^{22} colony forming units (CFU), or a 46 percent reduction over baseline pollutant loadings. See Chapter 12 of ''Development Document for the Final Revisions to the NPDES and the Effluent Guidelines for CAFOs'' EPA–821–R–03–001. Other pathogens would likely be reduced by a similar degree. EPA projected $0.3 to $3.4 million in improved shellfish harvests associated with reduced pathogen discharges from Large CAFOs. 68 FR 7240.

4. This Rule

As noted, EPA has determined that there are no technically feasible and economically achievable candidate technologies for fecal coliform removal that are cost reasonable and would achieve greater removals than the 2003 BPT limitations. The following discussion summarizes the basis for this final determination.

(a) EPA's Approach To Establishing BCT Limitations for Fecal Coliform

As previously explained, the first step to establishing BCT limitations is to identify technology options that provide additional conventional pollutant control beyond the level of control provided by the application of BPT limitations and to evaluate these technologies for ''availability'' (including technical feasibility) and ''economic achievability.'' *See* 33 U.S.C. 1311(b)(2)(E). Out of 41 candidate technologies, EPA has identified no technologies that are both available and achievable for Subpart D facilities, and has identified only two available technologies that might be [11] economically achievable for Subpart C facilities.

The next step in determining BCT is to evaluate any candidate technology that is both technically feasible and economically achievable for cost reasonableness. Traditionally, EPA has evaluated candidate BCT technologies for cost-reasonableness using a two-part BCT cost test it developed for two conventional pollutants, BOD and TSS. The test is intended to assess whether there are cost-reasonable technologies that will achieve greater BOD and TSS removals than required by the BPT technology for an industry category by comparing the incremental cost-effectiveness of candidate BCT technologies with the incremental cost-effectiveness of BOD and TSS removals at POTWs through advanced secondary treatment as compared to secondary treatment. This test makes sense for BOD and TSS because advanced secondary treatment is specifically designed to remove additional BOD and TSS. However, it is not designed for additional fecal coliform removal, so the incremental cost-effectiveness of advanced secondary treatment in removing fecal coliform is not a good benchmark for use in evaluating candidate BCT technologies for fecal coliform removal.

The methodology is appropriate for BOD and TSS because advanced secondary treatment is specific to the removal of BOD and TSS. Costs associated with upgrading a POTW from secondary to advanced secondary treatment were based on polymer addition to the activated sludge basin. The purpose of the polymer addition was to enhance removal of BOD and TSS in the secondary clarifier, and achieve final effluent concentrations of 20 mg/L BOD5 and 20 mg/L TSS. Therefore, the cost increment between secondary and advanced secondary treatment represents the incremental cost of removal of additional BOD and TSS at POTWs. 51 FR 24,981.

Unlike BOD and TSS, advanced secondary treatment is not designed to remove additional increments of fecal coliform beyond secondary treatment. When both secondary and advanced secondary treatment systems include disinfection, the total fecal coliform removal is nearly the same, over 99 percent. Secondary treatment by itself (without disinfection) also removes significant amounts of fecal coliform, although almost all POTWs include disinfection at some point in their treatment train. The polymer addition in advanced secondary treatment is not intended for additional fecal coliform removal since both secondary and advanced secondary POTWs use disinfection treatments to prevent fecal coliform releases to surface water. Therefore, because the object of the BCT cost test is to ensure that the costs of additional removals of conventional pollutants associated with BCT limitations do not exceed POTW conventional removal costs, distinguishing fecal coliform removals between advanced secondary treatment and secondary treatment is not relevant. Because advance secondary treatment is not intended to be more effective than secondary treatment at removing fecal coliform (and is not added for this purpose), it is not appropriate to apply

[10] For example, EPA could not easily assess fecal coliform loadings because they vary greatly depending on site characteristics. Further, quantifying discharges of other conventional pollutants is complicated by the challenge of distinguishing between CAFO and non-CAFO sources. 71 FR 37,763.

[11] For Subpart C (beef cattle, heifer, and dairy) facilities, in the 2003 final CAFO rule, EPA rejected more stringent BAT options on availability, not economic achievability grounds. Thus, for this final rule, EPA had no comparison technology that it had already determined to be not economically achievable. Thus, while the two available technologies have high costs relative to BPT and are likely not economically achievable, EPA was not able to determine this using its traditional methodology or the analysis from the 2003 rule.

the same POTW cost test used for evaluating BOD and TSS BCT limitations to the evaluation of fecal coliform limitations.

Given these circumstances, EPA recognized that if it were to use a similar numeric BCT cost test to evaluate fecal coliform removal for BCT, EPA would have to modify the traditional BCT cost test to address the issue that advanced secondary treatment at POTWs is not designed to remove fecal coliform. When the Agency promulgated the BCT methodology (including descriptions of how to apply the cost test), EPA envisioned the need for adjustments to the BCT cost test methodology in future rulemakings to account for lack of comparable data or other industry-specific factors. 51 FR 24,974, 24,976. Moreover, section 304(b)(4)(B) authorizes EPA to consider other appropriate factors in establishing BCT.

Accordingly, for the proposal, EPA suggested a modified BCT cost test. However, based on comments, EPA has identified a number of problems with the proposed test. These problems are discussed briefly here and described more fully in the Response to Comments Document prepared for this rule. First, although the revised test used a different cost-effectiveness calculation from the traditional test, it still relied indirectly on a comparison of the cost-effectiveness of BCT candidate technologies to the cost-effectiveness of advanced secondary treatment, even though, as just noted, advanced secondary treatment is not designed to remove fecal coliform. Second, the revised test did not compare the incremental cost-effectiveness of the candidate technologies to the incremental cost-effectiveness of fecal coliform removals at POTWs and therefore did not allow a comparison of ''the cost and level of reduction of [fecal coliform] from the discharge from publicly owned treatment works to the cost and level of reduction of [fecal coliform] from * * * industry sources * * *'' as required by the statute. As a result, EPA has now determined that it cannot use the revised test to evaluate cost reasonableness.

For this final rule, EPA also considered other possible approaches for evaluating cost reasonableness. One approach would have been to identify a technology that is used at POTWs specifically for fecal coliform removal and develop a test similar to the traditional cost test but based on this technology. EPA considered disinfection as one possible benchmark technology for fecal coliform removal, but determined that there is significant variability in the manner in which disinfection is used in combination with other technologies at different POTWs and it would thus be extremely difficult, both theoretically and logistically, to develop a revised benchmark based on this technology.

Consequently, for the final rule, EPA has applied a simplified cost reasonableness test designed to specifically address fecal coliform. This approach is consistent with section 304(b)(4) of the CWA and is one EPA has used in the past. While the traditional cost test compares reductions from BCT candidate technologies to those of POTWs, EPA has, on occasion, rejected BCT technologies without comparing them to POTW performance, even for BOD and TSS. Thus, for example, where EPA lacked sufficient data to quantitatively evaluate BOD and TSS reductions under the traditional test, EPA rejected more stringent BCT limitations solely on the basis of an evaluation of the incremental costs of further reductions. *See* 51 FR 24,974, 24,991.

(b) EPA's Evaluation of Candidate Technologies for Technical Feasibility and Economic Achievability

Based on its consideration of information submitted by commenters and its own analysis, EPA has determined that there are only two of 41 candidate technologies that are technically feasible and may be economically achievable that provide greater removals of fecal coliform than the technologies selected as the basis for BPT limitations in the 2003 rule. The discussion below provides the basis for this conclusion.

In its evaluation of candidate BCT technologies, EPA reviewed data on different types of CAFO manure management systems. These systems employed treatment technologies, best management practices (BMPs) for pollution prevention, and management practices for the handling, storage, treatment, and land application of wastes. Sources of information included available technical literature, over 11,000 comments submitted by industry and other public commenters, and insights gained from conducting over 116 site visits to CAFOs.

In its search for candidate technologies, EPA initially reexamined the technology options it had considered for the 2003 rule because the Agency concluded that these might provide more fecal coliform reductions than the option selected for BPT limitations. EPA looked at technology Options 3, 5, 6 and 7 described in the proposal at 71 FR 37,763 and the Technical Development Document. Options 3, 5, 6, and 7 represented additional controls beyond the controls (*e.g.*, nutrient-based land application rates and production area discharges only under specified conditions). Option 3 would have required a reduction of discharges to ground water beneath the production area. Option 5 would require total containment of all manure and process wastewater by swine and poultry operations. Option 6 would require anaerobic digesters at swine and dairy facilities. Option 7 would require a national prohibition of manure application to frozen, snow-covered, or saturated ground.

In addition to the four technologies reviewed for the 2003 final rule, EPA looked at an additional 37 technologies and systems identified either by EPA or commenters as candidate fecal coliform BCT technologies. At the outset of assessment for this rule, EPA rejected all of these technologies as the basis for BCT limitations for fecal coliform for Subpart D CAFOs because they were either not technically feasible for all Subpart D CAFOs, or were not economically achievable. Many of the rejected technologies were costlier than Option 5 which EPA in the 2003 final CAFO rule had earlier determined was not economically achievable for Subpart D (*i.e.*, swine, poultry, and veal calf) facilities. The *Waterkeeper* court sustained the Agency's determination that CAFOs cannot reasonably bear the cost associated with Option 5. 399 F.3d at 516. Option 5 would have cost Subpart D facilities $167 million. *See* 68 FR 7218. Of the 19 technologies and systems approaches identified by commenters, none of the technologies costs less than $167 million. The least costly of these technologies—gasification recycle, digester based systems, super soils composting, aerobic digestion, and ABS—cost 1.3 times the cost of Option 5. Other technologies reviewed cost as much as seven times the total national costs of Option 5. Having determined that the costs of Option 5 were unachievable for Subpart D facilities, EPA did not evaluate further those treatment technologies that had similar or greater total costs. After rejecting the economically unachievable technologies identified by commenters, 22 technologies remained for further assessment with respect to technical feasibility. EPA found that none of these technologies were technically feasible for all CAFOs in Subpart D.

For Subpart C facilities, EPA did not have a previously identified option that it had already determined to be economically unachievable against which to compare the costs of candidate

BCT technologies. To do an economic achievability analysis of candidate technologies for Subpart C, EPA would have had to conduct an analysis of the economic conditions of individual CAFOs in order to estimate potential closures and evaluate appropriate financial ratios, as it traditionally does for economic achievability analysis. EPA determined that conducting such an analysis was not practical, and eventually also determined that it was not necessary to do so to complete its evaluation of candidate BCT technologies for subpart D. Rather, EPA first evaluated the candidate technologies for technical feasibility, and on this basis, rejected 39 of the 41 technologies (the four options considered for the 2003 rule, 16 identified by EPA and 19 suggested by commenters) as the basis for BCT limitation for fecal coliform for Subpart C. The two remaining technologies were then evaluated directly for cost reasonableness, without considering economic achievability, as explained in section III.G.4(c) of this preamble.

EPA explained the basis for its decisions with respect to feasibility of the other candidate technologies (for both Subparts C and D) in the proposed rule, and commenters have not provided any information that would lead the Agency to change its conclusions. 71 FR 37,768–71.

In addition, EPA specifically solicited comment on additional candidate technologies that might prove feasible and less costly than the technologies already evaluated for the proposal. EPA is aware of technologies that may, on a site-specific basis, be used to provide further reductions of conventional pollutants as compared to the technologies on which the 2003 BPT/BCT limitations were based. However, EPA's record shows these other technologies are not available engineering alternatives for most CAFOs, and they are therefore not feasible technology candidates. See Chapter 8 of the ''Development Document for the Final Revisions to the NPDES and the Effluent Guidelines for CAFOs'' and the docket accompanying this action for descriptions of these additional technologies.

In response to its requests for additional information, EPA received no new data that support evaluation of additional candidate technologies or warrant revision to EPA's conclusions about the costs or performance of the candidate technologies EPA identified. Specifically, while some commenters recommended consideration of additional digester systems, the costs of the various digester systems do not vary sufficiently to warrant a detailed analysis of the costs of these technologies at every type of CAFO. To date, EPA has not identified less expensive, and consequently, economically achievable candidate technologies than those it had previously evaluated. Furthermore, EPA did not further evaluate the systems approach (combinations of one or more candidate technologies) recommended by some commenters because it would not reduce fecal coliform more than the 99 percent assumed by EPA [12] in its analysis as the yardstick for performance of the candidate BCT technology. While not obtaining pollutant removals greater than those already considered by EPA, these systems would cost more than the cost of the individual technologies already reviewed. Therefore, EPA did not evaluate the suite of candidate technologies that performed comparably but were more expensive than the suite of technologies evaluated here. For the reasons described in Chapter 8 of the ''Development Document for the Final Revisions to the NPDES and the Effluent Guidelines for CAFOs'' and the proposal at 71 FR 37,765–8, EPA has determined that the candidate technologies it rejected are not technologically feasible and economically achievable for all CAFOs across a subcategory and thus not appropriate technologies for BCT limitations. The CWA does not authorize EPA to establish BCT limitations that are based on technologies that are not technologically feasible and economically achievable. Because only two technologies were both technically feasible and potentially economically achievable for Subpart C facilities (and none were for Subpart D facilities), EPA is only required to evaluate these two technologies further for cost reasonableness.

(c) EPA's Evaluation of the Remaining Candidate Technologies for Cost Reasonableness

The above assessment resulted in only two remaining candidate technologies (composting and constructed wetlands) that are potentially [13] technically feasible and economically achievable for fecal coliform control for one subcategory, the Subpart C (beef and dairy) subcategory. As discussed above, EPA did not conduct a new analysis of economic achievability for these technologies at Subpart C facilities, although EPA notes the costs are high relative to the BPT technology (which EPA also determined to be BAT). Specifically, the cost of the BPT technology for Subpart C was $214 million per year, while the cost of composting was estimated to be $1.4 billion per year, and the cost of constructed wetlands was $2.9 billion. Thus, EPA expects that if it had conducted a formal economic achievability analysis, EPA would have determined that both of these technologies are not economically achievable.

However, instead of evaluating these technologies with respect to economic achievability, EPA evaluated the cost reasonableness of the technologies using the simplified approach described above. In the past, EPA has adopted such an approach when it lacked a full data base to evaluate different BCT technologies. A simplified approach fits the circumstances here for two reasons. First, as noted, EPA has developed no standardized BCT cost test for fecal coliform. Second, EPA lacks the data to provide a comparison of incremental fecal coliform removals that is the basis for the BCT cost test for TSS and BOD.

The annual operating costs for composting would be more than six times as much as the full BPT level of control at Subpart C facilities (see Chapter 4 and Table A–15 of the Final Cost Methodology, EPA–821–R–03–004), while constructed wetlands would cost Subpart C facilities more than an order of magnitude (13) times the cost of the BPT level of control (see chapter 15 in the supplement to the TDD). EPA has determined that these costs are too high relative to the additional removals. EPA thus concludes that the incremental costs of the additional removals alone support a determination that these technologies are not cost reasonable.

To further evaluate this conclusion, EPA conducted a modeling analysis of POTW removal costs for fecal coliform. As discussed above, the available data do not permit an empirical cost comparison between CAFO candidate

[12] In the proposed rule, as a simplifying assumption all technologies were expected to achieve a 99 percent reduction in fecal coliform. 71 FR 37,765 and 37,767.

[13] EPA believes it is likely that some Subpart C facilities will have space constraints under either candidate technology. In this case the technology would not be feasible for all CAFOs in the subcategory. However, EPA lacks data regarding land availability and possible land constraints beyond an aggregate of data showing the average acres of cropland at Subpart C facilities. To the extent CAFOs can take the necessary amount of land out of crop production to provide the space to install construct wetlands or composting windrows, EPA does not have the data to estimate lost revenues associated with such losses of cropland. Therefore, EPA's estimated costs of such candidate technologies are potentially understated. Nonetheless, EPA analyzed cost reasonableness as if the technologies are feasible.

technologies and POTW fecal coliform performance. However, EPA was able to model POTW fecal coliform removal costs using reasonable approximating assumptions. EPA recognizes that the resulting calculation lacks the rigor of the determination of the 1986 POTW benchmark for TSS and BOD removal costs.[14] What this assessment shows is that POTW average costs of removals of fecal coliform are very low (*i.e.*, $0.33 per trillion CFU; *see* 71 FR 37,772). This is not surprising, given that most POTW permits require achievement of fecal coliform reduction near 99 percent.[15] In contrast, the two technologies being evaluated for cost reasonableness (composting and constructed wetlands) have higher costs for fecal coliform removal ($0.51 per trillion CFU for composting, and $1.02 per trillion CFU for constructed wetlands). (See supplement to Chapter 15 of the TDD, showing unit costs of NCSU technologies as provided by commenters, total national costs of employing such technologies at CAFOs, and a comparison of those costs to the BPT/BAT level of control.)

Even recognizing the necessary imprecision associated with EPA's calculations, EPA has determined that this limited POTW cost comparison further supports its determination that the costs of these two BCT candidate technologies are not cost reasonable, given the lack of hard data on which to base the determination. This is fully consistent with EPA's findings in the proposed rule that POTWs are very cost effective at fecal coliform removals. 71 FR 37,772. The assessment confirms what logic suggests: Given a POTW's requirement to virtually eliminate the extremely high fecal coliform discharges in its influent (basically raw sewage), POTWs, on a national basis, achieve fecal coliform removal on a cheaper basis than CAFOs.

Finally, EPA notes that Congress intended the BCT level of control to be somewhere between the BPT and the BAT levels of control, as established in the statute. As noted in the conference report to the 1977 amendments establishing BPT:

> ''The result of the cost test could be a 1984 requirement which is no more than that which would result from best practicable technology but also could result in effluent reductions equal to that required in the application of best available technology.'' Joint Explanatory Statement of the Committee of Conference, 95th Cong. 1st Sess., H.R. No. 95–830 at 85, *Legislative History* at 269.

Thus, candidate technologies with costs between 6 and 13 times the costs of technologies that have already been determined to be BAT would not generally be appropriate as the basis for BCT.

5. Additional Comments on the Proposal

The following discussion summarizes additional significant comments received by EPA on the proposed CAFO BCT determination for pathogens. For a complete response to the issues raised by commenters, see the Response to Comment Document.

In calculating the BPT cost per unit of fecal coliform removal for its cost-reasonableness assessment, one commenter noted the cost was erroneously calculated in units of dollars per billion colony forming units (CFU); the units should have been dollars per trillion CFU in order for the test to be comparable and consistent with the remaining BCT cost calculations. EPA agrees with this comment and has corrected all calculations to dollars per trillion CFU.

Some commenters correctly noted that as part of the BCT cost test for fecal coliform, EPA calculated the POTW and industry cost benchmarks as the difference in average costs of removing fecal coliform between secondary treatment and advanced secondary treatment rather than as the incremental cost for the upgrade. These commenters believed that such an approach was incorrect. As discussed above, EPA agrees and has not used the revised BCT cost test for this final rule. In regards to the BCT options that were selected for further analysis, some commenters believe that numerical limits are feasible for CAFOs and should have been selected for BCT. They would have liked to see EPA take a similar approach to CAFO waste that EPA has taken regarding human sewage sludge (*i.e.*, setting numerical pathogen standards for use). Some commenters pointed to the ''sludge rule'' or ''biosolids'' program under 40 CFR part 503 as a possible basis for pathogen standards in the CAFO rule. EPA notes that the CWA statutory criteria for sewage sludge standards under section 405 of the Act are health and welfare-based. By contrast, CWA effluent limitations require consideration of different factors. However, the technologies used to meet the regulations in part 503 may, in some cases, be used by CAFOs. For these reasons, EPA included sewage sludge pollution reduction technologies such as composting and lime addition in the suite of BCT candidate technologies the Agency considered. In addition, some commenters criticized EPA's cost analysis for not including cost-share from federal sources such as EQIP, and for not including cost offsets from sale of treated manure. EPA considered both of these aspects in the cost analysis to the 2003 final CAFO rule, and was upheld on its economic analysis. 399 F.3d 486. In addition, EPA considered such cost offsets in a sensitivity analysis, and concluded that the cost offsets did not change EPA's fundamental conclusions regarding economic achievability and feasibility. See Chapter 14 of the TDD for more information.

By contrast, other commenters found no fault or shortcomings in the EPA analysis of the technical feasibility of conventional technologies in determining BCT for pathogen removal. They agree that the candidate technologies examined by EPA present insurmountable challenges to many CAFOs that make them inappropriate as a basis for BCT. They found no fault with the cost data or analytical techniques used by EPA in the BCT cost test. These commenters also presented additional economic analysis of the candidate technologies that has been published in the ''Phase 3'' report on the ''Development of Environmentally Superior Technologies'' per agreements between the North Carolina Attorney General and major pork producers in the State. These commenters note that the ''Phase 3'' economic analysis found that none of the 16 technologies studied were economically feasible for existing swine operations in North Carolina, which is consistent with EPA's findings as discussed in detail above. These commenters also provided State records of CAFO violations and discharge data for the past three years to support their position that EPA has overstated the frequency of production area overflows. These additional data may be found in the record for this final action.

IV. Impact Analysis

A. Environmental Impacts

When EPA issued the revised CAFO regulations on February 12, 2003, it estimated annual pollutant reductions

[14] EPA made a number of assumptions for its calculations because it did not have the data to establish on a national basis the costs to POTWs of fecal coliform control. Thus, EPA's assessment used the cost of advanced secondary treatment as a proxy for the cost of additional technologies (*e.g.*, filtration) that POTWs may employ to achieve high fecal coliform removals (98 percent) required by water quality standards of 200 colony forming units (CFU) per ml. This assumption may overstate the costs of such technologies, in which case the cost per trillion CFU removed would be lower.

[15] As described in the proposal, POTW influents are approximately 5 million CFU per 100 ml, and PCS data shows effluent concentrations of ~ 20 CFU per ml.

for the rule at 56 million pounds of phosphorus, 110 million pounds of nitrogen, and two billion pounds of sediment. This final, revised rule will not change these environmental benefits since the technical requirements for CAFOs that discharge are not affected and all CAFOs, whether covered by NPDES permits or not, still need to control nutrient releases from the production and land application areas in order to comply with the Clean Water Act. Under this rule, all CAFOs that do not apply for permits must be designed, constructed, operated, and maintained such that the CAFO does not discharge or propose to discharge. Therefore, as was true under the 2003 rule, all discharges from CAFOs (except precipitation-related discharges from land application areas under a CAFO's control that qualify as agricultural stormwater discharges) are required to be covered by NPDES permits. The overall magnitude of the benefits will increase compared to 2003 due to growth in the industry, but the analysis for this rule does not recalculate these effects since the increase is not due to changes in the CAFO regulations. EPA is assuming full compliance with the rule, which is standard Agency procedure when modeling impacts of a final rule.

B. Administrative Burden Impacts

Since there is no change in technical requirements, changes in impacts on respondents are due exclusively to changes in the information collection burden. To determine the administrative burden for the Paperwork Reduction Act (PRA) analysis, the Agency first examined the two key permitting changes resulting from the *Waterkeeper* decision and how they would be implemented under the final regulations. These are the change in the duty to apply for CAFOs and the change to the nutrient management plan (NMP) related provisions for CAFO permits.

The 2003 CAFO rule had a universal duty to apply requirement which required virtually all CAFOs to obtain NPDES permit coverage. The supporting analysis for the 2003 rule estimated that as a result of this requirement, approximately 15,500 CAFOs would ultimately receive NPDES permits. See the Technical Development Document for the 2003 rule, Chapter 9.

This final rule changes the duty to apply requirement so that only CAFOs that discharge or propose to discharge are required to seek NPDES coverage. To derive the number of CAFOs that could ultimately fall into this category, EPA first projected total industry size for 2008 based on both U.S. Department of Agriculture (USDA) Census of Agriculture statistics as well as Agency-based sector expertise. This exercise yielded an estimate of approximately 20,700 total CAFOs for 2008. EPA then combined the 2008 projections for each animal sector with information on standardized operational profiles to anticipate the number of facilities as of 2008 that might discharge. For example, when inclement weather precludes land application or dewatering activities, open lot type facilities such as beef lots and dairy operations are more likely to experience conditions that could result in a discharge due to the use of open on-site lagoons. Additionally, EPA assumed that all dairies generate wastewater from the production area and generally have uncovered on-site lagoons. Thus, for purposes of burden estimates, EPA assumed that all dairies and most beef feedlots would apply for permits.

Even though the industry grew to roughly 20,700 CAFOs from 2002 to 2008, the change in the duty to apply requirement is anticipated to reduce the number of facilities needing permit coverage to approximately 15,300 discharging CAFOs. Based on these updated figures, EPA estimates that approximately 25 percent of the total universe of CAFOs would not discharge and thus would not need NPDES coverage under this final rule. Although these facilities may not need to apply for permits, the administrative burden analysis performed by EPA under the PRA nonetheless accounts for the costs that unpermitted facilities will incur for the nutrient management planning that are necessary for demonstrating that the facility is land applying manure in such a way as to qualify for the agricultural stormwater exemption.

These figures may overstate the numbers of CAFOs needing NPDES permits in that the estimates of the number of discharging facilities in each sector make conservative categorical assumptions about the likelihood of a discharge based on broad operational profiles and do not account for more subtle stratifications within specific operational categories. For instance, although most dairies generate wastewater from the production area and have on-site lagoons, there do, in fact, exist dairies designed to be no discharge operations.

Based on the updated estimates of the CAFO universe, EPA's PRA analysis projects, as shown in Table 4.1, that CAFO operators and permitting authorities will collectively experience an increase in total annual administrative burden of approximately $0.5 million as a result of the EPA regulations to address the court decision. Although the PRA burden to CAFOs and permitting authorities declines as a result of the Waterkeeper court decision to limit permits only to discharging CAFOs, this burden reduction is offset by the new NMP-related requirements for permits and by the assumption, for purposes of this PRA analysis, that all unpermitted CAFOs will certify under the voluntary no discharge certification option. More specifically, CAFO operators will experience a $0.2 million reduction in net annual administrative burden. This net result is based on several offsetting changes. CAFOs that do not seek permit coverage under this final rule because they do not discharge or propose to discharge will save approximately $14 million annually in reduced permitting costs. However, even though fewer CAFOs will need to be covered by NPDES permits, permitted facilities as a group face an increase in annual administrative burden of $1.2 million per year due to the new NMP requirements.

EPA's analysis of burden impacts to CAFOs also accounts for the burden that unpermitted facilities will incur in order to be able to qualify for the agricultural stormwater exemption—a cost category that EPA estimates will result in a burden on unpermitted facilities of $12.2 million annually. In addition, EPA estimates that the voluntary certification option for unpermitted CAFOs could add $0.4 million annually to the PRA burden for CAFOs. Although certification is voluntary, EPA elected to cost the PRA burden associated with this option so as to provide a complete accounting of all rule-related impacts. As noted above, the net result of these impacts is an administrative burden savings across all CAFO operators, permitted and unpermitted, of $0.2 million annually.

Permitting authorities, on the other hand, are projected to experience a $0.7 million increase in annual administrative burden. Although the burden to issue permits declines by $4.2 million annually due to fewer facilities needing permits, this decline is more than offset by the added workload arising from the new NMP-related requirements. EPA estimates that States would face an additional PRA burden of $4.9 million annually specifically as a result of the new NMP-related requirements. In addition, States are projected to face a burden increment of up to $0.04 million annually to process the new certifications.

EPA's estimate of PRA burden impacts changed from a reduction of $14.9 million annually for the 2006 proposed rule to an increase of $0.5

million annually in the final rule. This change is due principally to the Agency's decision, as discussed earlier in this section, to amend the PRA analysis to account for the burden incurred by unpermitted CAFOs for nutrient management planning, which is necessary for any unpermitted CAFO that land applies irrespective of whether the CAFO is certified under the voluntary no discharge certification option.

The PRA burden analysis presented in this rule accounts both for growth in the industry and changes in labor rates since the 2003 rule was issued. In addition, the changes are based on annualized impacts and assume a permit term of five years as stipulated in the CWA. EPA submitted draft ICRs with the 2006 proposed rule and 2008 supplemental proposal, and did not receive any comments from the Office of Management and Budget (OMB). The documentation in the public record on the PRA analysis for this rulemaking discusses more fully the assumptions used to estimate the numbers of CAFOs needing permits and to project the associated administrative burden.

TABLE 4.1—PRA BURDEN IMPACT CHANGES

[Note: Numbers may not add due to rounding.]

			Total baseline PRA burden: based on 2003 CAFO rule requirements [1]	Total amended PRA burden: based on final rule requirements	Net change in paperwork burden (2003 rule compared to final rule)
CAFOs needing permits (2008) [2].			20,685	15,281	
CAFOs seeking agricultural stormwater exemption only (2008).			n/a	5,404	
Total CAFOs (2008)			20,685	20,685	
Annualized Costs [3] (in $ millions).	CAFOs	Base NPDES Permit	$54.0	$40.0	($14.0)
		New NMP Provisions	n/a	$1.2	$1.2
		Agricultural Stormwater Exemption	n/a	$12.2	$12.2
		Certification	n/a	$0.4	$0.4
		Total CAFO Burden	$54.0	$53.8	($0.2)
	Permitting Authorities	Base NPDES Permit	$16.5	$12.2	($4.2)
		New NMP Provisions	n/a	$4.9	$4.9
		Certification	n/a	$0.04	$0.04
		Total Permit Authority Burden	$16.5	$17.1	$0.7
	All Respondents		$70.5	$71.0	$0.5

[1] 2003 baseline impacts adjusted to reflect current labor rates and growth in facilities.
[2] Facility totals are annualized over 5 years in burden calcultions presented below to reflect CWA requirement for NPDES permit renewal every 5 years.
[3] Annualized costs represent labor, capital and O&M costs.

C. Response to Public Comment on the Proposal

The Agency received a variety of comments on the impacts analysis presented for the 2006 proposed rule and the 2008 supplemental proposal. Several commenters indicated that the Agency erred in assuming that the environmental benefits from the 2003 rule would be retained under the approach adopted in this final rule. The Agency stands by its position presented in the 2006 proposed rule, but has revised the burden analysis to reflect more fully that all unpermitted CAFOs do not discharge or propose to discharge and, therefore, must implement nutrient management practices to ensure that any discharge from the CAFO's land application area qualifies for the agricultural stormwater exemption. As a consequence, as indicated above, the annual burden reduction realized by CAFOs under the final revised rule is shown as approximately $0.2 million as opposed to the $15.4 million reduction projected for CAFOs in the 2006 proposed rule. This revised analysis also addresses specific comments suggesting that the Agency should recognize that operators without permits will continue to incur costs under the regulation in order to meet the burden of proof required to qualify for the agricultural stormwater exemption.

Other commenters indicated that the impacts analysis underestimated the costs to CAFO operators of complying with the EPA regulations. Careful review of these statements makes clear that commenters with this viewpoint either did not account for the fact that the impacts analysis presented for this rulemaking is exclusively an assessment of the paperwork burden—not the overall compliance burden—faced by CAFOs, or did not fully consider that the costs shown represent average yearly (annualized) burden rather than total paperwork-related costs for a five-year CAFO NPDES permit.

Other commenters provided specific information on nutrient management plan (NMP) development costs, which the Agency determined corroborated the original NMP cost estimates.

One State commenter claimed that the Agency had underestimated costs to permitting authorities for managing the potential public hearings precipitated by the new requirements for public notice. This commenter projected that every public notice regarding NMPs would result in a public hearing. The Agency re-examined its assumptions regarding the incidence of public hearings, but did not find information to corroborate the commenter's projection either based on past NPDES public hearing patterns or based on expectations from other States regarding the number of hearings likely to be triggered by NMP-related public notices. This assumption that public hearings would not be requested for every NMP is further confirmed by the experiences of States that currently require NMPs to be submitted as part of their permitting process.

Several commenters indicated that they believed that the Agency had also

underestimated the cost to States of processing voluntary no discharge certifications. This final rule does not require permitting authority review of no discharge certifications. See discussion of certification submission in section III.A.3(c) of this preamble. The Agency notes that the cost analysis it performed to assess the paperwork burden associated with the final rule shows a net paperwork burden reduction to States on this aspect of the rule, since the 2003 rule required permits-which are more burdensome for permitting authorities to process-from all CAFOs.

V. Cross-Media Considerations and Pathogens

A. Cross-Media Approaches

Since 2003, EPA and CAFO stakeholders have been interested in developing a framework to enable CAFOs to pursue superior environmental performance across all media. Today, some CAFOs voluntarily conduct whole-farm audits to evaluate releases of pollutants to all media through Environmental Management Systems (*e.g.*, ISO 14001 certification), self-assessment tools, EPA's performance track, and State-approved trade-offs in reducing discharges to water and emissions to air that accomplish the best overall level of protection given State and local conditions. The development of new and emerging technologies offers the potential to achieve equivalent or greater pollutant reductions relative to those achieved by the effluent guidelines and standards. Many of these are superior from a cross-media perspective, and EPA encourages superior cross-media solutions. These regulations regarding nutrient management plans may provide an opportunity for EPA to encourage cross-media approaches at CAFOs. For example, the nutrient value in the animal byproducts provides a valuable source of fertilizer for crops. However, inappropriate application can lead to preventable discharges to water and emissions to air. Optimal application technologies and rates reduce potential water quality and air quality standards violations.

The fact that EPA has multiple efforts underway relating to livestock operations under several environmental statutes underscores the need to explore how to leverage existing regulatory authorities most effectively. For example, in addition to the regulations being finalized in this rulemaking, the Agency has recently undertaken a National Air Emissions Monitoring Study. EPA also proposed a rule that would exempt animal feeding operations from certain requirements relating to reporting of air releases under hazardous waste laws.

EPA solicited comment in the 2006 proposed rule on the feasibility (including consideration of legal, technical, and implementation issues) of allowing flexibility in how facilities meet various programmatic requirements, for instance those of the Clean Air Act and the Clean Water Act (CWA), in order to achieve greater cross-media pollutant reductions. EPA received generalized support for this type of approach in the comments submitted in response. EPA will continue to explore cross-media considerations as it works together with CAFOs and stakeholders to build further experience on this issue.

As an example of the Agency's work in this area, in October 2007, EPA awarded $8 million in federal grants for providing technical assistance to livestock operators, including animal feeding operations, for the prevention of water discharges and reduction of air emissions. More recently, EPA's Agricultural Advisor announced the establishment of the Farm, Ranch, and Rural Communities Federal Advisory Committee. One of the issues the committee will focus on will be identification and development of a comprehensive environmental strategy for livestock operations. EPA anticipates that the committee will offer timely observations on the opportunities and challenges of cross-media approaches to programs for addressing environmental concerns at livestock operations as its work progresses.

B. Pathogens and Animal Feeding Operations

Although this final rule does not require any new best conventional pollutant control technology (BCT) effluent limitations specifically to control fecal coliform, EPA is continuing to assess environmental and human health concerns associated with the management of manure and wastewater at CAFOs. Pollutants most commonly associated with animal waste include nutrients (including ammonia), organic matter, solids, odorous compounds, and various pathogens. These pollutants, and others, can be released into the environment through discharge or runoff if manure and wastewater are not properly handled and managed. EPA is interested in recently initiated studies to assess potential impacts from pathogens in livestock manure, especially those which may pose unique risks such as Cryptosporidium and Giardia. These pathogens may be of concern if they make their way into drinking water sources (*e.g.*, lakes, rivers, and streams) because of their stability in the natural environment and their resistance to the most commonly used drinking water disinfection procedure (*i.e.*, chlorination). If proper treatment is not provided for these pathogens, they have the potential to cause adverse health impacts in exposed populations. While the Agency has a number of on-going efforts in these areas, research is still in its early stages. The absence of available information necessarily limits EPA's ability to act with respect to these potential concerns.

EPA's Office of Research and Development (ORD) is actively working to identify sources of Cryptosporidium. In collaboration with the Centers for Disease Control (CDC), EPA Region 3, and the Potomac River Drinking Water Source Protection Partnership (DWSPP), ORD has initiated Cryptosporidium source tracking studies of the Potomac River Watershed. The primary objective of this project is to develop and implement a monitoring program for Cryptosporidium source tracking in order to identify the most significant sources of this parasite within the watershed. Once identified, appropriate source protection efforts, where available, may be mobilized and directed to the reduction of these sources' contributions. In addition, in 2005 EPA's Science to Achieve Results (STAR) program held a solicitation for proposals entitled, ''Development and Evaluation of Innovative Approaches for the Quantitative Assessment of Pathogens in Drinking Water,'' and has funded eleven research grants from this proposal involving the development and evaluation of innovative approaches to quantitatively detect microbial pathogens in drinking water, including Cryptosporidium and Giardia. The goal of the STAR research is to improve the suite of available detection methods for known and emerging microbial drinking water contaminants. EPA expects that this research will result in methods that will, among other things, allow determination of the presence and quantities of waterborne pathogens; present a protocol for preparing and processing water samples for application of the proposed approach; and where possible, allow comparison of the performance of the new detection methods with existing approved EPA methods for specific pathogens.

ORD is also collaborating with the U.S. Department of Agriculture (USDA) in their research programs associated with Cryptosporidium. ORD scientists

participated in the USDA selection process for the National Research Initiative on Watershed Processes and Water Resources. Grants awarded under this program will explore the effects of a number of factors on Cryptosporidium mobility and contamination of waterways. These include the use of buffers and other best management practices for decreasing loadings of Cryptosporidium from land application of wastes and other soluble organic matter. EPA scientists have begun to review recently published research on Cryptosporidium and Giardia oocyst shedding. The research suggests that shedding is highest during early life stages of cattle and zoonotic forms and may greatly diminish as calves age. These factors have already led some veterinarians to recommend that farmers separate these high shedding young animals from older animals to decrease disease spread and economic losses among herds of cattle and dairy cows. The research also suggests that the separation may provide secondary environmental benefits by helping to prevent the release of Cryptosporidium into waterways. As part of their efforts to protect the New York City water supply, the New York State Department of Agriculture has recommended separation controls in their best management practice (BMP) guidance to dairy farmers. Other States, including California, are considering similar separation BMPs.

EPA's ORD will continue to collaborate and assess the impacts that these and other research efforts may have on any future CAFO management recommendations.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51,735; October 4, 1993), this action is a ''significant regulatory action.'' Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

In addition, EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis is contained in section IV of this preamble above, entitled *Impact Analysis*. A copy of the supporting analysis is available in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. However, the Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations and has assigned OMB control number 2040–0250. The Information Collection Request (ICR) document prepared by EPA was assigned EPA ICR No. 1989.06.

The 2003 CAFO rule had a universal duty to apply requirement which required virtually all CAFOs to obtain NPDES permit coverage. This final revised rule changes the duty to apply requirement so that only CAFOs that discharge or propose to discharge must to seek NPDES coverage. EPA projects that CAFO operators and permitting authorities will collectively experience a reduction in total annual administrative burden of 25,500 hours as a result of the regulatory revisions to address the court decision. Labor burden is projected to undergo a net decrease compared to a net increase in administrative costs of $0.5 million annually as discussed in Chapter IV. This difference arises from the fact that the PRA analysis performed for the final rule converts labor hour burden to labor costs using a higher wage rate for State permitting authorities than for CAFO operators.[16] The higher wage rate for State permitting authorities causes the State labor cost increase to be large enough to offset the labor cost reduction experienced by CAFO operators once labor hours are converted to dollars in the PRA analysis of annual administrative impacts.

More specifically, the estimated reduction in total annual administrative burden of 25,500 hours is based on a projected decrease in labor burden to CAFO operators of approximately 54,100 hours annually and a projected increase in labor burden to State permitting authorities of approximately 28,600 hours annually. For CAFOs, much of the labor burden decrease derives from the smaller number of facilities that will need permits, which results in an annual burden decrease of more than 703,000 labor hours. This burden reduction for CAFOs is offset by a concomitant increase of 603,200 labor hours annually at unpermitted facilities for activities necessary to meet the agricultural stormwater exemption, along with an increment of 33,100 hours annually for permitted facilities to undertake the NMP-related activities and 12,600 hours annually for those CAFOs who elect to pursue the voluntary certification option.

The annual labor burden increase for State permitting authorities of 28,600 hours includes an estimated annual reduction in labor burden of 93,000 hours due to the need to process fewer permits. However, for State permitting authorities this burden reduction is more than offset by an increment in annual labor burden of 120,700 hours to address the new NMP-related requirements combined with a relatively minor annual burden increase of 900 hours to handle the voluntary certifications.

Additional details on the assumptions and parameters of the PRA analysis are available in the ICR document referenced above, which is available in the docket supporting this final rulemaking. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

This final rule responds to OMB or public comments on the information collection requirements as discussed in the *Impact Analysis* (section IV) in this preamble.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) A small business based on Small Business Administration (SBA) size standards at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any

[16] Wage rates for the PRA analysis supporting this rulemaking were drawn from recent reports filed by the U.S. Department of Labor, Bureau of Labor Statistics. For further information please refer to the ICR prepared by EPA for the rulemaking, available in the record as EPA ICR No. 1989.06.

not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this rule on small entities, I certify that this action will not have a significant adverse economic impact on a substantial number of small entities. This final rule does not change the substantive requirements for CAFO operators or increase the net paperwork burden faced by facilities compared to the burden imposed under the 2003 CAFO rule. Some CAFOs will face increased permitting costs due to the new NMP provisions, while others will face reduced costs due to the changes in the duty to apply. However, these paperwork cost changes are generally small and do not rise to the level of a significant adverse economic impact on a substantial number of operators. Additionally, this rule would not affect small governments as the permitting authorities are State or federal agencies.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this rule does not contain a federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The revised administrative burden EPA calculated for the final rule constitutes a reduction of roughly 25,500 labor hours annually compared to the administrative burden estimated for the 2003 CAFO rule. This burden reduction reflects a decrease in annual labor burden of 54,100 hours for CAFO operators and an annual labor burden increase to State permitting authorities of 28,600 hours. In addition, this rulemaking is in response to a federal court decision and is necessary to assure compliance with applicable law. Thus, this rule is not subject to the requirements of sections 202 and 205 of the UMRA.

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. There are no local or Tribal governments authorized to implement the NPDES permit program and the Agency is unaware of any local or Tribal governments who are owners or operators of CAFOs. Thus this rule is not subject to the requirements of section 203 of UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43,255; August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. EPA estimates that the average annual impact on all authorized States together is a cost increase of $0.7 million. EPA does not consider an annual impact of this magnitude on States to be a substantial effect. In addition, EPA does not expect this rule to have any impact on local governments. EPA also considered flexibility as an important factor when developing this regulation.

Further, the revised regulations will not alter the basic State-federal scheme established in the CWA under which EPA authorizes States to carry out the NPDES permitting program. EPA expects the revised regulations to have little effect on the relationship between, or the distribution of power and responsibilities among, the federal and State governments. Thus, Executive Order 13132 does not apply to this rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed rule from State and local officials. In addition, through a variety of meetings with State associations during the rulemaking process, States have been informed about the issues related to addressing the court's decisions. States provided input during these meetings. State concerns generally focused on the process for incorporating NMPs into permits and the related public review process, and also on guidance related to what constitutes a discharge from a CAFO given that the proposed rule would have required only those operations that discharge or propose to discharge to apply for a permit. These concerns have been addressed in such a way as to provide flexibility and accountability in the new permit application requirements and review processes promulgated in this rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled, ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67,249; November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.''

This rule does not have tribal implications. There are currently no tribal governments authorized for the NPDES program. This rulemaking provides increased opportunity for the public and tribal governments to comment on specific CAFOs' applications for permit coverage. It will not have substantial direct effects on

tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this rule.

In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, EPA specifically solicited comment on the proposed rule from tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045 ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19,885; April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The benefits analysis performed for the 2003 CAFO rule determined that the rule would result in certain significant benefits to children's health. (Please refer to the *Benefits Analysis* in the record for the 2003 CAFO final rule.) This action does not affect the environmental benefits of the 2003 CAFO rule.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28,355; May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. EPA has concluded that this rule is not likely to have any adverse energy effects since CAFOs in general do not figure significantly in the energy market, and the regulatory revisions finalized in this rule are not likely to change existing energy generation or consumption profiles for CAFOs.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This final rule does not change the technical requirements for land application from those of the 2003 rule. Production area requirements are the same for existing sources and for new sources as in the 2003 rule. The no discharge production area requirements for new sources in this rulemaking, however, now include an option for complying with the requirement through the development of site-specific design, operation and maintenance permit conditions that will ensure no discharge from the site. However, the specific no discharge conditions applicable to a specific operator choosing this option for compliance will be determined by the permitting authority on a site-specific BPJ basis. EPA encourages the use by permitting authorities of voluntary consensus standards, such as those that may be developed by USDA, in establishing the site-specific technical requirements in CAFO permits when the permittee demonstrates that these standards are consistent with the achievement of no discharge from a specific CAFO.

This rule for new source requires that CAFOs complying with the no discharge requirement through the development of site-specific design, maintenance and operation standards must use prescribed technical standards in demonstrating that a specific CAFO's design, operation and maintenance will be consistent with no discharge from its production area. (In certain circumstances, a CAFO may use either equivalent evaluation and simulation procedures or technical standards developed for a class of specific facilities within a specified geographical area if approved by its permitting authority), EPA has not required the use of any particular voluntary consensus standards in this rule. The use, however, of voluntary consensus standards such as those that may be developed by USDA for the required demonstration that site-specific design, maintenance and operational requirements for CAFOs to comply with the no discharge standard is encouraged. The decisions as to what specific best management practices and technologies must be applied at individual animal feeding operations are left to the State or EPA in the exercise of their NPDES authority.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will become effective December 22, 2008.

BILLING CODE 6560–50–P

APPENDIX TO PREAMBLE – FORM 2B
NPDES Application Form for Concentrated Animal Feeding Operations (and Concentrated Aquatic Animal Production Facilities)

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)

OMB Control No. 2040-0250
Approval expires *xx/xx/xx*

FORM 2B NPDES	EPA	U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATIONS FOR PERMIT TO DISCHARGE WASTEWATER CONCENTRATED ANIMAL FEEDING OPERATIONS AND AQUATIC ANIMAL PRODUCTION FACILITIES

I. GENERAL INFORMATION Applying for: Individual Permit ☐ Coverage Under General Permit ☐

A. TYPE OF BUSINESS	B. CONTACT INFORMATION	C. FACILITY OPERATION STATUS
❑ 1. Concentrated Animal Feeding Operation (complete items B, C, D, and section II) ❑ 2. Concentrated Aquatic Animal Production Facility (complete items B, C, and section III)	Owner/or Operator Name: ..... Telephone: (.....) ..... Address: ..... Facsimile: (.....) ..... City: ..... State: ..... Zip Code:	❑ 1. Existing Facility ❑ 2. Proposed Facility

D. FACILITY INFORMATION

Name: ..... Telephone: (.....) .....
Address: Facsimile: (.....) .....
City: ..... State: ..... Zip Code: .....
County: ..... Latitude: ..... Longitude: .....

If contract operation: Name of Integrator: .....
Address of Integrator: .....

II. CONCENTRATED ANIMAL FEEDING OPERATION CHARACTERISTICS

A. TYPE AND NUMBER OF ANIMALS

1. TYPE	2. ANIMALS: NO. IN OPEN CONFINEMENT	2. ANIMALS: NO. HOUSED UNDER ROOF
❑ Mature Dairy Cows		
❑ Dairy Heifers		
❑ Veal Calves		
❑ Cattle (not dairy or veal calves)		
❑ Swine (55 lbs. or over)		

B. Manure, Litter, and/or Wastewater Production and Use

1. How much manure, litter, and wastewater is generated annually by the facility? .....tons ..... gallons
2. If land applied how many acres of land under the control of the applicant are available for applying the CAFOs manure/litter/wastewater? .....acres
3. How many tons of manure or litter, or gallons of waste-water produced by the CAFO will be transferred annually to other persons? ..... tons/gallons (*circle one*)

❑ Swine (under 55 lbs.)			
❑ Horses			
❑ Sheep or Lambs			
❑ Turkeys			
❑ Chickens (Broilers)			
❑ Chickens (Layers)			
❑ Ducks			
❑ Other Specify.....			
3. TOTAL ANIMALS			

C. ❑ TOPOGRAPHIC MAP

D. TYPE OF CONTAINMENT, STORAGE AND CAPACITY

1. Type of Containment	Total Capacity (in gallons)	
❑ Lagoon		
❑ Holding Pond		
❑ Evaporation Pond		
❑ Other: Specify		

2. Report the total number of acres contributing drainage: ..... acres

3. Type of Storage	Total Number of Days	Total Capacity (gallons/tons)	
❑ Anaerobic Lagoon			
❑ Storage Lagoon			
❑ Evaporation Pond			
❑ Aboveground Storage Tanks			
❑ Belowground Storage Tanks			
❑ Roofed Storage Shed			
❑ Concrete Pad			
❑ Impervious Soil Pad			
❑ Other: Specify			

E. NUTRIENT MANAGEMENT PLAN

Note: Effective February 27, 2009, a permit application is not complete until a nutrient management plan is submitted to the Permitting Authority.

1. Please indicate whether a nutrient management plan has been included with this permit application. ☐ Yes ☐ No

2. If no, please explain:

_____

_____

3. Is a nutrient management plan being implemented for the facility? ☐ Yes ☐ No

4. The date of the last review or revision of the nutrient management plan. Date:.....

5. If not land applying, describe alternative use(s) of manure, litter, and or wastewater:

_____

_____

F. LAND APPLICATION BEST MANAGEMENT PRACTICES

Please check any of the following best management practices that are being implemented at the facility to control runoff and protect water quality:

❑ Buffers ❑ Setbacks ❑ Conservation tillage ❑ Constructed wetlands ❑ Infiltration field ❑ Grass filter ❑ Terrace

III. CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY CHARACTERISTICS

A. For each outfall give the maximum daily flow, maximum 30-day flow, and the long-term average flow.				B. Indicate the total number of ponds, raceways, and similar structures in your facility.		
1. Outfall No.	2. Flow (*gallons per day*)			1. Ponds	2. Raceways	3. Other
	a. Maximum. Daily	b. Maximum 30 Day	c. Long Term Average	C. Provide the name of the receiving water and the source of water		
				1. Receiving Water	2. Water Source	

D. List the species of fish or aquatic animals held and fed at your facility. For each species, give the total weight produced by your facility per year in pounds of harvestable weight, and also give the maximum weight present at any one time.

1. Cold Water Species			2. Warm Water Species		
a. Species	b. Harvestable Weight (*pounds*)		a. Species	b. Harvestable Weight (*pounds*)	
	(1) Total Yearly	(2) Maximum		(1) Total Yearly	(2) Maximum

E. Report the total pounds of food during the calendar month of maximum feeding.	1. Month	2. Pounds of Food

IV. CERTIFICATION .....

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Name and Official Title (*print or type*)	B. Phone No. ( )
C. Signature	D. Date Signed

EPA Form 3510-2B (08-08)

INSTRUCTIONS

GENERAL

This form must be completed by all applicants who check "yes" to Item II-B in Form 1. Not all animal feeding operations or fish farms are required to obtain NPDES permits. Exclusions are based on size and whether or not the facility discharges proposed to discharge. *See* the description of these exclusions in the CAFO regulations at 40 CFR 122.23.

For aquatic animal production facilities, the size cutoffs are based on whether the species are warm water or cold water, on the production weight per year in harvestable pounds, and on the amount of feeding in pounds of food (*for cold water species*). Also, facilities which discharge less than 30 days per year, or only during periods of excess runoff (*for warm water fish*) are not required to have a permit.

Refer to the Form 1 instructions to determine where to file this form.

Item I-A

See the note above to be sure that your facility is a "concentrated animal feeding operation" (CAFO).

Item I-B

Use this space to give owner/operator contact information.

Item I-C

Check "proposed" if your facility is not now in operation or is expanding to meet the definition of a CAFO in accordance with the CAFO regulations at 40 CFR 122.23.

Item I-D

Use this space to give a complete legal description of your facility's location including name, address, and latitude/longitude. Also, if a contract grower, the name and address of the integrator.

Item II

Supply all information in item II if you checked (1) in item I-A.

Item II-A

Give the maximum number of each type of animal in open confinement or housed under roof (either partially or totally) which are held at your facility for a total of 45 days or more in any 12 month period. Provide the total number of animals confined at the facility.

Item II-B

Provide the total amount of manure, litter, and wastewater generated annually by the facility. Identify if manure, litter, and wastewater generated by the facility is to be land applied and the number of acres, under the control of the CAFO operator, suitable for land application. If the answer to question 3 is yes, provide the estimated annual quantity of manure, litter, and wastewater that the applicant plans to transfer off-site.

Item II-C

Check this box if you have submitted a topographic map of the entire operation, including the production area and land under the operational control of the CAFO operator where manure, litter, and/or wastewater are applied with Form 1.

Item II-D

1. Provide information on the type of containment and the capacity of the containment structure (s).
2. The number of acres that are drained and collected in the containment structure (s).
3. Identify the type of storage for the manure, litter, and/or wastewater. Give the capacity of this storage in days.

Item II-E

Provide information concerning the status of submitting a nutrient management plan for the facility to complete the application. In those cases where the nutrient management plan has not been submitted, provide an explanation. If not land applying, describe the alternative uses of the manure, litter, and wastewater (*e.g.*, composting, pelletizing, energy generation, etc.).

Item II-F

Check any of the identified conservation practices that are being implemented at the facility to control runoff and protect water quality.

Item III

Supply all information in Item III if you checked (2) in Item I-A.

Item III-A

Outfalls should be numbered to correspond with the map submitted in Item XI of Form 1. Values given for flow should be representative of your normal operation. The maximum daily flow is the maximum measured flow occurring over a calendar day. The maximum 30-day flow is the average of measured daily flow over the calendar month of highest flow. The long-term average flow is the average of measure daily flows over a calendar year.

Item III-B

Give the total number of discrete ponds or raceways in your facility. Under "other," give a descriptive name of any structure which is not a pond or a raceway but which results in discharge to waters of the United States.

Item III-C

Use names for receiving water and source of water which correspond to the map submitted in Item XI of Form 1.

Item III-D

The names of fish species should be proper, common, or scientific names as given in special Publication No. 6 of the American Fisheries Society. "A List of Common and Scientific Names of Fishes from the United States and Canada." The values given for total weight produced by your facility per year and the maximum weight present at any one time should be representative of your normal operation.

Item III-E

The value given for maximum monthly pounds of food should be representative of your normal operation.

Item IV

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(C)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application..shall upon conviction, be punished by a fine of no more than $10,000 or by imprisonment for not more than six months, or both."

	Federal regulations require the certification to be signed as follows: A. For corporation, by a principal executive officer of at least the level of vice president. B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or C. For a municipality, State, federal, or other public facility, by either a principal executive officer or ranking elected official. **Paper Reduction Act Notice** **The public reporting and recordkeeping burden for this collection of information is estimated to average 9.5 hours per response. The public reporting and recordkeeping burden for development of the nutrient management plan to be submitted with the form is estimated to average 58 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.**

BILLING CODE 6560–50–C

List of Subjects

40 CFR Part 9

Environmental protection, Reporting and recordkeeping requirements.

40 CFR Part 122

Administrative practice and procedure, confidential business information, hazardous substances, reporting and recordkeeping requirements, water pollution control.

40 CFR Part 412

Environmental protection, feedlots, livestock, waste treatment and disposal, water pollution control.

Dated: October 31, 2008.

Stephen L. Johnson,

Administrator.

■ For the reasons set out in the preamble, chapter I of Title 40 of the Code of Federal Regulations is to be amended as follows:

PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

■ 1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345(d) and (e), 1361; Executive Order 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

■ 2. In § 9.1 the table is amended by adding entries in numerical order under the indicated heading to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB control No.
* * * * *	
EPA Administered Permit Programs: The National Pollutant Discharge Elimination System	
* * * * *	
122.21(i)	2040–0250
* * * * *	
122.23 (d), (e), (h)	2040–0250
* * * * *	

PART 122—EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

■ 3. The authority citation for part 122 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*

■ 4. Section 122.21 is amended by revising the last sentence in paragraph (a)(1), and revising paragraph (i)(1)(x), to read as follows:

§ 122.21 Application for a permit (applicable to State programs, see § 123.25).

(a) * * *

(1) * * * The requirements for concentrated animal feeding operations are described in § 122.23(d).

* * * * *

(i) * * *

(1) * * *

(x) A nutrient management plan that at a minimum satisfies the requirements specified in § 122.42(e), including, for all CAFOs subject to 40 CFR part 412, subpart C or subpart D, the requirements of 40 CFR 412.4(c), as applicable.

* * * * *

■ 5. Section 122.23 is amended as follows:

■ a. By revising paragraph (a).

■ b. By revising paragraphs (d)(1) and (d)(2).

■ c. By adding paragraphs (e)(1) and (e)(2).

■ d. By revising paragraph (f).

■ e. By revising paragraph (g).

■ f. By revising paragraph (h).

■ g. By adding paragraph (i).

■ h. By adding paragraph (j).

§ 122.23 Concentrated animal feeding operations (applicable to State NPDES programs, see § 123.25).

(a) *Scope.* Concentrated animal feeding operations (CAFOs), as defined in paragraph (b) of this section or designated in accordance with paragraph (c) of this section, are point sources, subject to NPDES permitting requirements as provided in this section. Once an animal feeding operation is defined as a CAFO for at least one type of animal, the NPDES requirements for CAFOs apply with respect to all animals in confinement at the operation and all manure, litter, and process wastewater generated by those animals or the production of those animals, regardless of the type of animal.

* * * * *

(d) * * *

(1) *Permit Requirement.* The owner or operator of a CAFO must seek coverage under an NPDES permit if the CAFO discharges or proposes to discharge. A

CAFO proposes to discharge if it is designed, constructed, operated, or maintained such that a discharge will occur. Specifically, the CAFO owner or operator must either apply for an individual NPDES permit or submit a notice of intent for coverage under an NPDES general permit. If the Director has not made a general permit available to the CAFO, the CAFO owner or operator must submit an application for an individual permit to the Director.

(2) *Information to submit with permit application or notice of intent.* An application for an individual permit must include the information specified in § 122.21. A notice of intent for a general permit must include the information specified in §§ 122.21 and 122.28.

* * * * *

(e) * * *

(1) For unpermitted Large CAFOs, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO shall be considered an agricultural stormwater discharge only where the manure, litter, or process wastewater has been land applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in § 122.42(e)(1)(vi) through (ix).

(2) Unpermitted Large CAFOs must maintain documentation specified in § 122.42(e)(1)(ix) either on site or at a nearby office, or otherwise make such documentation readily available to the Director or Regional Administrator upon request.

(f) When must the owner or operator of a CAFO seek coverage under an NPDES permit? Any CAFO that is required to seek permit coverage under paragraph (d)(1) of this section must seek coverage when the CAFO proposes to discharge, unless a later deadline is specified below.

(1) *Operations defined as CAFOs prior to April 14, 2003.* For operations defined as CAFOs under regulations that were in effect prior to April 14, 2003, the owner or operator must have or seek to obtain coverage under an NPDES permit as of April 14, 2003, and comply with all applicable NPDES requirements, including the duty to maintain permit coverage in accordance with paragraph (g) of this section.

(2) *Operations defined as CAFOs as of April 14, 2003, that were not defined as CAFOs prior to that date.* For all operations defined as CAFOs as of April 14, 2003, that were not defined as CAFOs prior to that date, the owner or operator of the CAFO must seek to obtain coverage under an NPDES permit by February 27, 2009.

(3) *Operations that become defined as CAFOs after April 14, 2003, but which are not new sources.* For a newly constructed CAFO and for an AFO that makes changes to its operations that result in its becoming defined as a CAFO for the first time after April 14, 2003, but is not a new source, the owner or operator must seek to obtain coverage under an NPDES permit, as follows:

(i) For newly constructed operations not subject to effluent limitations guidelines, 180 days prior to the time CAFO commences operation;

(ii) For other operations (*e.g.*, resulting from an increase in the number of animals), as soon as possible, but no later than 90 days after becoming defined as a CAFO; or

(iii) If an operational change that makes the operation a CAFO would not have made it a CAFO prior to April 14, 2003, the operation has until February 27, 2009, or 90 days after becoming defined as a CAFO, whichever is later.

(4) *New sources.* The owner or operator of a new source must seek to obtain coverage under a permit at least 180 days prior to the time that the CAFO commences operation.

(5) *Operations that are designated as CAFOs.* For operations designated as a CAFO in accordance with paragraph (c) of this section, the owner or operator must seek to obtain coverage under a permit no later than 90 days after receiving notice of the designation.

(g) *Duty to Maintain Permit Coverage.* No later than 180 days before the expiration of the permit, or as provided by the Director, any permitted CAFO must submit an application to renew its permit, in accordance with § 122.21(d), unless the CAFO will not discharge or propose to discharge upon expiration of the permit.

(h) *Procedures for CAFOs seeking coverage under a general permit.* (1) CAFO owners or operators must submit a notice of intent when seeking authorization to discharge under a general permit in accordance with § 122.28(b). The Director must review notices of intent submitted by CAFO owners or operators to ensure that the notice of intent includes the information required by § 122.21(i)(1), including a nutrient management plan that meets the requirements of § 122.42(e) and applicable effluent limitations and standards, including those specified in 40 CFR part 412. When additional information is necessary to complete the notice of intent or clarify, modify, or supplement previously submitted material, the Director may request such information from the owner or operator. If the Director makes a preliminary determination that the notice of intent meets the requirements of §§ 122.21(i)(1) and 122.42(e), the Director must notify the public of the Director's proposal to grant coverage under the permit to the CAFO and make available for public review and comment the notice of intent submitted by the CAFO, including the CAFO's nutrient management plan, and the draft terms of the nutrient management plan to be incorporated into the permit. The process for submitting public comments and hearing requests, and the hearing process if a request for a hearing is granted, must follow the procedures applicable to draft permits set forth in 40 CFR 124.11 through 124.13. The Director may establish, either by regulation or in the general permit, an appropriate period of time for the public to comment and request a hearing that differs from the time period specified in 40 CFR 124.10. The Director must respond to significant comments received during the comment period, as provided in 40 CFR 124.17, and, if necessary, require the CAFO owner or operator to revise the nutrient management plan in order to be granted permit coverage. When the Director authorizes coverage for the CAFO owner or operator under the general permit, the terms of the nutrient management plan shall become incorporated as terms and conditions of the permit for the CAFO. The Director shall notify the CAFO owner or operator and inform the public that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

(2) *For EPA-issued permits only.* The Regional Administrator shall notify each person who has submitted written comments on the proposal to grant coverage and the draft terms of the nutrient management plan or requested notice of the final permit decision. Such notification shall include notice that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

(3) Nothing in this paragraph (h) shall affect the authority of the Director to require an individual permit under § 122.28(b)(3).

(i) *No Discharge Certification Option.* (1) The owner or operator of a CAFO that meets the eligibility criteria in paragraph (i)(2) of this section may certify to the Director that the CAFO does not discharge or propose to discharge. A CAFO owner or operator who certifies that the CAFO does not

discharge or propose to discharge is not required to seek coverage under an NPDES permit pursuant to paragraph (d)(1) of this section, provided that the CAFO is designed, constructed, operated, and maintained in accordance with the requirements of paragraphs (i)(2) and (3) of this section, and subject to the limitations in paragraph (i)(4) of this section.

(2) Eligibility Criteria. In order to certify that a CAFO does not discharge or propose to discharge, the owner or operator of a CAFO must document, based on an objective assessment of the conditions at the CAFO, that the CAFO is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge, as follows:

(i) The CAFO's production area is designed, constructed, operated, and maintained so as not to discharge. The CAFO must maintain documentation that demonstrates that:

(A) Any open manure storage structures are designed, constructed, operated, and maintained to achieve no discharge based on a technical evaluation in accordance with the elements of the technical evaluation set forth in 40 CFR 412.46(a)(1)(i) through (viii);

(B) Any part of the CAFO's production area that is not addressed by paragraph (i)(2)(i)(A) of this section is designed, constructed, operated, and maintained such that there will be no discharge of manure, litter, or process wastewater; and

(C) The CAFO implements the additional measures set forth in 40 CFR 412.37(a) and (b);

(ii) The CAFO has developed and is implementing an up-to-date nutrient management plan to ensure no discharge from the CAFO, including from all land application areas under the control of the CAFO, that addresses, at a minimum, the following:

(A) The elements of § 122.42(e)(1)(i) through (ix) and 40 CFR 412.37(c); and

(B) All site-specific operation and maintenance practices necessary to ensure no discharge, including any practices or conditions established by a technical evaluation pursuant to paragraph (i)(2)(i)(A) of this section; and

(iii) The CAFO must maintain documentation required by this paragraph either on site or at a nearby office, or otherwise make such documentation readily available to the Director or Regional Administrator upon request.

(3) Submission to the Director. In order to certify that a CAFO does not discharge or propose to discharge, the CAFO owner or operator must complete and submit to the Director, by certified mail or equivalent method of documentation, a certification that includes, at a minimum, the following information:

(i) The legal name, address and phone number of the CAFO owner or operator (see § 122.21(b));

(ii) The CAFO name and address, the county name and the latitude and longitude where the CAFO is located;

(iii) A statement that describes the basis for the CAFO's certification that it satisfies the eligibility requirements identified in paragraph (i)(2) of this section; and

(iv) The following certification statement: ''I certify under penalty of law that I am the owner or operator of a concentrated animal feeding operation (CAFO), identified as [Name of CAFO], and that said CAFO meets the requirements of 40 CFR 122.23(i). I have read and understand the eligibility requirements of 40 CFR 122.23(i)(2) for certifying that a CAFO does not discharge or propose to discharge and further certify that this CAFO satisfies the eligibility requirements. As part of this certification, I am including the information required by 40 CFR 122.23(i)(3). I also understand the conditions set forth in 40 CFR 122.23(i)(4), (5) and (6) regarding loss and withdrawal of certification. I certify under penalty of law that this document and all other documents required for this certification were prepared under my direction or supervision and that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons directly involved in gathering and evaluating the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.''; and

(v) The certification must be signed in accordance with the signatory requirements of 40 CFR 122.22.

(4) Term of Certification. A certification that meets the requirements of paragraphs (i)(2) and (i)(3) of this section shall become effective on the date it is submitted, unless the Director establishes an effective date of up to 30 days after the date of submission. Certification will remain in effect for five years or until the certification is no longer valid or is withdrawn, whichever occurs first. A certification is no longer valid when a discharge has occurred or when the CAFO ceases to meet the eligibility criteria in paragraph (i)(2) of this section.

(5) Withdrawal of Certification. (i) At any time, a CAFO may withdraw its certification by notifying the Director by certified mail or equivalent method of documentation. A certification is withdrawn on the date the notification is submitted to the Director. The CAFO does not need to specify any reason for the withdrawal in its notification to the Director.

(ii) If a certification becomes invalid in accordance with paragraph (i)(4) of this section, the CAFO must withdraw its certification within three days of the date on which the CAFO becomes aware that the certification is invalid. Once a CAFO's certification is no longer valid, the CAFO is subject to the requirement in paragraph (d)(1) of this section to seek permit coverage if it discharges or proposes to discharge.

(6) Recertification. A previously certified CAFO that does not discharge or propose to discharge may recertify in accordance with paragraph (i) of this section, except that where the CAFO has discharged, the CAFO may only recertify if the following additional conditions are met:

(i) The CAFO had a valid certification at the time of the discharge;

(ii) The owner or operator satisfies the eligibility criteria of paragraph (i)(2) of this section, including any necessary modifications to the CAFO's design, construction, operation, and/or maintenance to permanently address the cause of the discharge and ensure that no discharge from this cause occurs in the future;

(iii) The CAFO has not previously recertified after a discharge from the same cause;

(iv) The owner or operator submits to the Director for review the following documentation: a description of the discharge, including the date, time, cause, duration, and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge in addition to submitting a certification in accordance with paragraph (i)(3) of this section; and

(v) Notwithstanding paragraph (i)(4) of this section, a recertification that meets the requirements of paragraphs (i)(6)(iii) and (i)(6)(iv) of this section shall only become effective 30 days from the date of submission of the recertification documentation.

(j) *Effect of certification.* (1) An unpermitted CAFO certified in accordance with paragraph (i) of this section is presumed not to propose to discharge. If such a CAFO does discharge, it is not in violation of the requirement that CAFOs that propose to discharge seek permit coverage pursuant

to paragraphs (d)(1) and (f) of this section, with respect to that discharge. In all instances, the discharge of a pollutant without a permit is a violation of the Clean Water Act section 301(a) prohibition against unauthorized discharges from point sources.

(2) In any enforcement proceeding for failure to seek permit coverage under paragraphs (d)(1) or (f) of this section that is related to a discharge from an unpermitted CAFO, the burden is on the CAFO to establish that it did not propose to discharge prior to the discharge when the CAFO either did not submit certification documentation as provided in paragraph (i)(3) or (i)(6)(iv) of this section within at least five years prior to the discharge, or withdrew its certification in accordance with paragraph (i)(5) of this section. Design, construction, operation, and maintenance in accordance with the criteria of paragraph (i)(2) of this section satisfies this burden.

■ 6. Section 122.28 is amended by adding a new paragraph (b)(2)(vii), to read as follows:

§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).

* * * * *

(b) * * *

(2) * * *

(vii) A CAFO owner or operator may be authorized to discharge under a general permit only in accordance with the process described in § 122.23(h).

* * * * *

■ 7. Section 122.42 is amended as follows:

■ a. By revising paragraph (e) introductory text and paragraph (e)(1) introductory text.

■ b. By removing the period at the end of paragraph (e)(4)(vii) and adding in its place ''; and''.

■ c. By adding paragraph (e)(4)(viii).

■ d. By adding paragraphs (e)(5) and (e)(6).

§ 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25).

* * * * *

(e) *Concentrated animal feeding operations (CAFOs).* Any permit issued to a CAFO must include the requirements in paragraphs (e)(1) through (e)(6) of this section.

(1) *Requirement to implement a nutrient management plan.* Any permit issued to a CAFO must include a requirement to implement a nutrient management plan that, at a minimum, contains best management practices necessary to meet the requirements of this paragraph and applicable effluent limitations and standards, including those specified in 40 CFR part 412. The nutrient management plan must, to the extent applicable:

* * * * *

(4) * * *

(viii) The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs (e)(5)(i)(B) and (e)(5)(ii)(D) of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph (e)(5)(ii) of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph (e)(5)(ii)(D) of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

(5) *Terms of the nutrient management plan.* Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-specific nutrient management plan. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan determined by the Director to be necessary to meet the requirements of paragraph (e)(1) of this section. The terms of the nutrient management plan, with respect to protocols for land application of manure, litter, or process wastewater required by paragraph (e)(1)(viii) of this section and, as applicable, 40 CFR 412.4(c), must include the fields available for land application; field-specific rates of application properly developed, as specified in paragraphs (e)(5)(i) through (ii) of this section, to ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application. The terms must address rates of application using one of the following two approaches, unless the Director specifies that only one of these approaches may be used:

(i) *Linear approach.* An approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications:

(A) The terms include maximum application rates from manure, litter, and process wastewater for each year of permit coverage, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Director, in pounds per acre, per year, for each field to be used for land application, and certain factors necessary to determine such rates. At a minimum, the factors that are terms must include: The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses of a field such as pasture or fallow fields; the realistic yield goal for each crop or use identified for each field; the nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field; credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; and accounting for all other additions of plant available nitrogen and phosphorus to the field. In addition, the terms include the form and source of manure, litter, and process wastewater to be land-applied; the timing and method of land application; and the methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(B) Large CAFOs that use this approach must calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application; or

(ii) *Narrative rate approach.* An approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied, according to the following specifications:

(A) The terms include maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Director, in pounds per acre, for each field, and certain factors necessary to determine such amounts. At a minimum, the factors that are terms must include: the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses such as pasture or fallow fields (including

alternative crops identified in accordance with paragraph (e)(5)(ii)(B) of this section); the realistic yield goal for each crop or use identified for each field; and the nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field. In addition, the terms include the methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied: Results of soil tests conducted in accordance with protocols identified in the nutrient management plan, as required by paragraph (e)(1)(vii) of this section; credits for all nitrogen in the field that will be plant available; the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; the form and source of manure, litter, and process wastewater; the timing and method of land application; and volatilization of nitrogen and mineralization of organic nitrogen.

(B) The terms of the nutrient management plan include alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation. Where a CAFO includes alternative crops in its nutrient management plan, the crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan must include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources specified by the Director for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied must be determined in accordance with the methodology described in paragraph (e)(5)(ii)(A) of this section.

(C) For CAFOs using this approach, the following projections must be included in the nutrient management plan submitted to the Director, but are not terms of the nutrient management plan: The CAFO's planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the nutrient management plan.

(D) CAFOs that use this approach must calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in paragraph (e)(5)(ii)(A) of this section before land applying manure, litter, and process wastewater and must rely on the following data:

(*1*) A field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology required by paragraph (e)(5)(ii)(A) of this section, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Director; and

(*2*) The results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(6) *Changes to a nutrient management plan.* Any permit issued to a CAFO must require the following procedures to apply when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Director:

(i) The CAFO owner or operator must provide the Director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraphs (e)(5)(i)(B) and (e)(5)(ii)(D) of this section are not subject to the requirements of paragraph (e)(6) of this section.

(ii) The Director must review the revised nutrient management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 40 CFR part 412, and must determine whether the changes to the nutrient management plan necessitate revision to the terms of the nutrient management plan incorporated into the permit issued to the CAFO. If revision to the terms of the nutrient management plan is not necessary, the Director must notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If revision to the terms of the nutrient management plan is necessary, the Director must determine whether such changes are substantial changes as described in paragraph (e)(6)(iii) of this section.

(A) If the Director determines that the changes to the terms of the nutrient management plan are not substantial, the Director must make the revised nutrient management plan publicly available and include it in the permit record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner or operator and inform the public of any changes to the terms of the nutrient management plan that are incorporated into the permit.

(B) If the Director determines that the changes to the terms of the nutrient management plan are substantial, the Director must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 40 CFR 124.11 through 124.13. The Director may establish, either by regulation or in the CAFO's permit, an appropriate period of time for the public to comment and request a hearing on the proposed changes that differs from the time period specified in 40 CFR 124.10. The Director must respond to all significant comments received during the comment period as provided in 40 CFR 124.17, and require the CAFO owner or operator to further revise the nutrient management plan if necessary, in order to approve the revision to the terms of the nutrient management plan incorporated into the CAFO's permit. Once the Director incorporates the revised terms of the nutrient management plan into the permit, the Director must notify the owner or operator and inform the public of the final decision concerning revisions to the terms and conditions of the permit.

(iii) Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include, but are not limited to:

(A) Addition of new land application areas not previously included in the CAFO's nutrient management plan. Except that if the land application area that is being added to the nutrient management plan is covered by terms of a nutrient management plan incorporated into an existing NPDES permit in accordance with the requirements of paragraph (e)(5) of this section, and the CAFO owner or operator applies manure, litter, or

process wastewater on the newly added land application area in accordance with the existing field-specific permit terms applicable to the newly added land application area, such addition of new land would be a change to the new CAFO owner or operator's nutrient management plan but not a substantial change for purposes of this section;

(B) Any changes to the field-specific maximum annual rates for land application, as set forth in paragraphs (e)(5)(i) of this section, and to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph (e)(5)(ii) of this section;

(C) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application expressed in accordance with paragraph (e)(5) of this section; and

(D) Changes to site-specific components of the CAFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S.

(iv) *For EPA-issued permits only*. Upon incorporation of the revised terms of the nutrient management plan into the permit, 40 CFR 124.19 specifies procedures for appeal of the permit decision. In addition to the procedures specified at 40 CFR 124.19, a person must have submitted comments or participated in the public hearing in order to appeal the permit decision.

■ 8. Section 122.62 is amended by adding paragraph (a)(17) to read as follows:

§ 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see § 123.25)

* * * * *

(a) * * *

(17) *Nutrient Management Plans.* The incorporation of the terms of a CAFO's nutrient management plan into the terms and conditions of a general permit when a CAFO obtains coverage under a general permit in accordance with §§ 122.23(h) and 122.28 is not a cause for modification pursuant to the requirements of this section.

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■ 9. Section 122.63 is amended by adding paragraph (h) to read as follows:

§ 122.63 Minor modification of permits.

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(h) Incorporate changes to the terms of a CAFO's nutrient management plan that have been revised in accordance with the requirements of § 122.42(e)(6).

PART 412—CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFO) POINT SOURCE CATEGORY

■ 10. The authority citation for part 412 continues to read as follows:

Authority: 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

■ 11. Section 412.37 is amended by revising paragraph (a)(2) to read as follows:

§ 412.37 Additional measures.

(a) * * *

(2) *Depth marker.* All open surface liquid impoundments must have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. In the case of new sources subject to effluent limitations established pursuant to § 412.46(a)(1) of this part, all open surface manure storage structures associated with such sources must include a depth marker which clearly indicates the minimum capacity necessary to contain the maximum runoff and direct precipitation associated with the design storm used in sizing the impoundment for no discharge.

■ 12. Section 412.46 is amended by revising paragraphs (a)(1), (d), and (e) to read as follows:

§ 412.46 New source performance standards (NSPS).

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(a) * * *

(1) Any CAFO subject to this subpart may request that the Director establish NPDES permit best management practice effluent limitations designed to ensure no discharge of manure, litter, or process wastewater based upon a site-specific evaluation of the CAFO's open surface manure storage structure. The NPDES permit best management practice effluent limitations must address the CAFO's entire production area. In the case of any CAFO using an open surface manure storage structure for which the Director establishes such effluent limitations, ''no discharge of manure, litter, or process wastewater pollutants,'' as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Director on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

(i) Information to be used in the design of the open manure storage structure including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the CAFO's Nutrient Management Plan, additional storage capacity for manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.

(ii) The design of the open manure storage structure as determined by the most recent version of the National Resource Conservation Service's Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Director.

(iii) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.

(iv) The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in paragraph (a)(1)(i) of this section. Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.

(v) Site-specific predicted design specifications including dimensions of the storage facility, daily manure and wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.

(vi) An evaluation of the adequacy of the designed manure storage structure using the most recent version of the Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all inputs to SPAW including but not limited to daily precipitation, temperature, and evaporation data for the previous 100 years, user-specified soil profiles representative of the CAFO's land application areas, planned crop rotations consistent with the CAFO's Nutrient Management Plan, and the final modeled result of no overflows from the designed open manure storage structure. For those CAFOs where 100 years of local weather data for the CAFO's location is not available, CAFOs

may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Director may approve equivalent evaluation and simulation procedures.

(vii) The Director may waive the requirement of (a)(1)(vi) for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

(viii) Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (a)(1)(i) through (a)(1)(vii) of this section and operated in accordance with the additional measures and records required by § 412.47(a) and (b), will fulfill the requirements of this section.

(ix) The Director has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.

* * * * *

(d) Any source subject to this subpart that commenced discharging after April 14, 1993, and prior to April 14, 2003, which was a new source subject to the standards specified in § 412.15, revised as of July 1, 2002, must continue to achieve those standards for the applicable time period specified in 40 CFR 122.29(d)(1). Thereafter, the source must achieve the standards specified in § 412.43(a) and (b).

(e) Any source subject to this subpart that commenced discharging after April 14, 2003, and prior to January 20, 2009, which was a new source subject to the standards specified in § 412.46(a) through (d) in the July 1, 2008, edition of 40 CFR part 439, must continue to achieve those standards for the applicable time period specified in 40 CFR 122.29(d)(1).

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