

NO. 14-1248

IN THE
UNITED STATES COURT OF APPEALS
FOR THE TWELFTH CIRCUIT

UNITED STATES OF AMERICA,

Plaintiff-Appellant, and

DEEP QUOD RIVERWATCHER, INC., and DEAN JAMES,

Plaintiffs-Intervenors-Appellants

v.

MOON MOO FARM, INC.,

Defendant-Appellee.

Appeal from the United States District Court for New Union

BRIEF FOR MOON MOO FARM, INC.

Defendant-Appellee.

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JURISDICTIONAL STATEMENT

The parties in this case are involved in an action under the Clean Water Act (CWA) § 505 for alleged permitting requirement violations. R. at 4. Appellants' also brought suit under Resource Conservation and Recovery Act (RCRA) § 7002. R. at 4. Under both statutes, district courts enjoy federal question jurisdiction, regardless of diversity or amount in controversy. 33 U.S.C. § 1365(a) (2012); 42 U.S.C. § 6972(a) (2012). The Court of Appeals for the Twelfth Circuit has proper jurisdiction to review final decisions of the district court of New Union. 28 U.S.C. § 1291 (2012).

STATEMENT OF THE ISSUES

- I. Is Moon Moo Farm's canal a public trust navigable water allowing for a public right of access?
- II. Can evidence obtained through trespass and without a warrant be used in a civil enforcement proceeding against Moon Moo Farm?
- III. Is Moon Moo Farm a CAFO requiring a NPDES permit or is the farm exempt from NPDES permitting requirements under the agricultural stormwater exception?
- IV. Is Moon Moo Farm subject to a citizen suit under RCRA because its application of fertilizer violates EPA landfill guidelines or poses an imminent and substantial endangerment to human health?

STATEMENT OF THE CASE

The United States of America (on behalf of the Environmental Protection Agency) filed a complaint in the United States District Court for the District of New Union against Moon Moo Farm for allegedly violating National Pollutant Discharge Elimination System (NPDES) permitting regulations. R. at 1. Deep Quod Riverwatcher, an environmental organization, and its leader Dean James (collectively, Riverwatcher) intervened in the action asserting that Moon Moo Farm had either violated section 505 of the CWA or Section 7002 of RCRA with regard to their manure management practices. R. at 4. In response, Moon Moo Farm counterclaimed for

common law trespass against Riverwatcher alleging that the entry onto Moon Moo Farm's canal to obtain water samples was not permitted by law. R. at 4. Upon completion of discovery, all parties moved for summary judgment. R. at 7.

The United States District Court granted Moon Moo Farm's motion for summary judgment on the grounds that (1) Riverwatcher obtained the evidence through illegal trespass, therefore it is not admissible in a civil enforcement proceeding, (2) Moon Moo Farm is not a CAFO subject to NPDES permitting requirements, (3) Moon Moo Farm's fields fall under the stormwater exemption of the CWA and (4) Riverwatcher's open dumping and Appellants' imminent and substantial endangerment claims were defective because Moon Moo Farm's fertilizer is not a solid waste and Appellants failed to present a genuine issue that Moon Moo Farm's manure application poses an imminent and substantial endangerment. R. at 1.

The EPA and Riverwatcher each filed a timely notice of appeal. R. at 1. Accordingly, this Court granted review on June, 1, 2014. R. at 3.

STATEMENT OF THE FACTS

Moon Moo Farm operates a dairy farm ten miles outside the City of Farmville in the State of New Union. R. at 4. To meet increasing demands for milk, the farm increased its milking herd from 170 to the 350 in 2010. R. at 5. Moon Moo Farm grows Bermuda grass over 150 acres of field to feed its livestock. R. at 5. Each summer the Bermuda grass is harvested and dried as silage. R. at 5. To facilitate this process and increase output, Moon Moo Farm recycles manure collected from its animal confinement area as fertilizer. R. at 5. The farm adds recycled acid whey to its fertilizer prior to application, consistent with New Union's well-established fertilization practice. R. at 6. One test conducted on the fertilizer revealed a pH value of 6.1. R. at 6.

Moon Moo Farm is located at a bend in the Deep Quod River. R. at 5. A previous owner of the farm constructed a shallow canal to prevent flooding at the river bend. R. at 5. The canal, now referred to by some as the “Queechunk Canal,” runs directly through Moon Moo Farm’s property. R. at 5. The farm owners have prominently placed “No Trespassing” signs along this canal to keep unwanted visitors out. R. at 5. Despite attempts to prevent access, travelers of the Deep Quod River sometimes misuse the canal as a shortcut. R. at 5. The Deep Quod River remains a navigable interstate waterway to and from the Mississippi River. R. at 5.

On April 12, 2013, a member of Riverwatcher ignored the “No Trespassing” signs and traveled down Moon Moo Farm’s canal. R. at 6. During that time, the Farmville Region had experienced a “significant storm event” in which two inches of rain fell on Moon Moo Farm. R. at 6. The Riverwatcher member observed brown water flowing off the fields into a drainage ditch alongside the canal. R. at 6. He took samples of the water directly from the ditch, not the surrounding waters within the canal. R. at 6. According to lab results, the samples indicated high levels of nitrates and fecal coliforms. R. at 6.

The Farmville municipal water supply comes from the Deep Quod River. R. at 6. Moon Moo Farm is not the only farm along the Deep Quod River. R. at 7. The Deep Quod watershed, which is heavily farmed, has been subject to nitrate advisories since 2002. R. at 7. Despite the advisories, Farmville Water Authority declared the water safe for adult consumption. R. at 6. In its opinion, only infants less than two years old were at risk if consuming the nitrate-rich water. R. at 6. Although Riverwatcher’s expert admitted she could not show the farm ever caused a nitrate advisory, she opined its application of fertilizer resulted in runoff and groundwater pollution. R. at 6.

STANDARD OF REVIEW

This case involves an appeal from the district court's grant of summary judgment for failure to raise a genuine issue of material fact. Summary judgment is appropriate if there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 324 (1986). The issues presented on appeal encompass questions of law, which this court reviews *de novo*. *Pierce v. Underwood*, 487 U.S. 552, 558 (1988).

SUMMARY OF THE ARGUMENT

While the Deep Quod River is an interstate body of water that cannot be privately owned, the canal is private property and Moon Moo Farm is entitled to the right to exclude others. Moon Moo Farm retains its private property rights over the canal because the Deep Quod River remains navigable. Trespassers upon the canal use it solely as a shortcut down the River. Therefore, as a matter of law, Riverwatcher cannot be excused for trespassing upon the private property because the public is not entitled to access to Moon Moo Farm's canal.

Further, evidence obtained through trespass is not admissible in a civil enforcement proceeding. Although the CWA and RCRA have codified inspection procedures, the procurement of administrative warrants supporting inspections is heavily favored. Nonetheless, even if these inspection procedures adequately substitute a warrant requirement, Riverwatcher's trespass did not comply with them. Therefore, the exclusionary rule is appropriately applied in this case because the social benefit of allowing the illegally obtained evidence does not outweigh the harm that would result in allowing private citizens to substitute for credentialed inspectors to enforce CWA and RCRA regulations. Here, the EPA seeks to circumvent its inspection policies by benefitting from the trespass. Admitting into evidence illegally obtained evidence would

undermine the administrative agency procedure by incentivizing government agencies to hire mercenary-like individuals to trespass upon private property in search of incriminating evidence. Because the threat to administrative inspection procedure is too great, the suppression of the illegally obtained evidence in this case is proper.

Moon Moo Farm cannot fairly be categorized as a Medium CAFO subject to NPDES permitting. Moon Moo Farm does not fit the statutory definition of a Medium CAFO because it never directly discharged into waters of the United States. Rather, Moon Moo Farm experienced agricultural stormwater runoff, which is expressly exempt from the CWA's definition of a point source. Thus, Moon Moo Farm is merely an AFO not subject to NPDES regulation. Unlike CAFOs, AFOs are not required to have site specific management practices. Nonetheless, Moon Moo Farm's Nutrient Management Plan meets the requirements of the stormwater exemption. Even if the runoff constitutes a direct discharge, Moon Moo Farm is allowed to take corrective measures before being classified as a CAFO subject to NPDES permitting.

Moon Moo Farm is not subject to a citizen suit under RCRA § 7002(a)(1)(A) because RCRA does not regulate the farm's application of manure and acid whey. First, the mixture does not fit under the definition of "solid waste" provided in RCRA because Moon Moo Farm never intended to discard it. Rather, the farm applied the mixture for beneficial reuse. Second, the EPA excludes agricultural waste applied for fertilization purposes from RCRA regulation. Because Moon Moo Farm applied the mixture for fertilization purposes, the agricultural waste exemption shields the farm from liability. Third, RCRA § 7002(a)(1)(A) requires a violation of a RCRA statute or regulation to maintain a citizen suit. Moon Moo Farm did not violate any RCRA statute or EPA regulation. Contrary to Riverwatcher's allegation, the farm never engaged in the open dumping of solid waste.

Dismissal of Appellants' citizen suit under RCRA § 7002(a)(1)(B) is appropriate because the mixture does not fit under the definition of solid waste. Assuming that the mixture constitutes a solid waste, Appellants did not provide sufficient evidence to find an issue of fact that the farm's runoff contaminated Farmville's water supply. Appellants also failed to show that exposure to the nitrate contaminated water may cause a substantial risk to human health should this court decline to grant relief.

ARGUMENT

I. MOON MOO FARM'S CANAL IS NOT A PUBLIC TRUST NAVIGABLE WATER, THEREFORE THERE IS NO RIGHT TO PUBLIC NAVIGATION AND RIVERWATCHER COMMITTED TRESPASS.

In the 1940's, the previous owner of Moon Moo Farm's land constructed the canal to prevent flooding at the river bend. R. at 5. Our system of property law rewards those who labor to improve the land by allowing them to exclude the "common right of others to access" of such land. John Locke, *Two Treatises of Government*, 288 (Peter Laslett ed., Cambridge Univ. Press 1988) (1690). Granting public access to privately owned land deprives owners of a fundamental property right. *E.g. Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994). Further, the government may only impose a public right of access to privately constructed canals if the canal substantially impairs navigability of the natural waterway. *Vaughn v. Vermillion Corp.*, 444 U.S. 206, 209 (1979). Here, the record states that the Deep Quod River has remained navigable since its construction over seventy years ago. R. at 5. Because Appellants' claim seeks an unconstitutional taking and fails to raise an issue of material fact as to the navigability of the Deep Quod River, Moon Moo Farm's motion for summary judgment was properly granted.

Additionally, Riverwatcher is not entitled to public access to the canal under the English common law Public Trust doctrine because it does not apply in this case. This doctrine insures a

public right of navigation in waters affected by the ebb and flow of the tide. *Arnold v. Mundy*, 6 N.J.L. 1, 12 (1821). This doctrine developed to grant States absolute title to all waters navigable at the time of statehood, regardless of tidal influence. See *Oregon ex rel. State Land Board v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 374 (1977); *Barney v. Keokuk*, 94 U.S. 324, 338 (1877). Here, the canal is manmade and was not navigable at the time of statehood. R at 4. Therefore, this doctrine does not apply.

A. Allowing Public Access to the Canal Would Constitute a Taking in Violation of the Fifth Amendment.

Declaring the canal a public trust navigable water would deny Moon Moo Farm its fundamental property right to exclude trespassers. However, the Fifth Amendment prohibits the government from taking private property without just compensation. U.S. Const. amend. V. A taking of private property can occur in many forms. See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922) (holding that when a regulation “goes too far it will be recognized as a taking”); see also *United States v. Cress*, 243 U.S. 316, 328 (1917) (stating that courts must look at the character of the invasion, not the resulting damage, to determine whether a taking has occurred). Because the right to exclude is “one of the essential sticks in the bundle of property rights,” declaring public access to the canal would constitute an unconstitutional taking. *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979).

When determining whether a government unlawfully infringes a landowner’s property by declaring a manmade body of water a navigational servitude, courts must examine (1) the economic impact of the servitude, (2) “its interference with reasonable investment backed expectations” and (3) “the character of the governmental action” *Id.* at 175. In *Kaiser*, the landowner’s right to exclude others from its manmade marina was such “a fundamental element of the property right” that imposing a navigational servitude without just compensation was

unconstitutional. *Kaiser*, 444 U.S. at 181. To justify denying public access, the Court emphasized the “actual physical invasion” of the government action. *Id.* Thus, courts must carefully scrutinize when governmental entities allow public access to private property because such physical invasions weigh heavily in favor of constituting an unconstitutional taking.

Moon Moo Farm also stands to be deprived of its right to restrict others from accessing the canal. Allowing public access to Moon Moo Farm’s canal would constitute an actual physical invasion. Here, applying the *Kaiser* factors highly suggests that the government should not be able to declare public access to the canal “without invoking its eminent domain power and paying just compensation.” *Id.* at 180. As the first factor suggests, the economic impact of declaring public access to the canal is not dispositive because depriving the right to exclude is a substantial harm in itself. Even so, opening the canal to the public may have a negative economic impact on Moon Moo Farm. Opening the canal to the public increases Moon Moo Farm’s economic responsibilities because “joint liability can attach where the property is used by both the dominant and servient owners.” *Sutera v. Go Jokir, Inc.*, 86 F.3d 298, 304 (2d Cir. 1996). Thus, Public access to the canal may force Moon Moo Farm to supervise the safety of its potential users. If not, Moon Moo Farm could be liable for foreseeable accidents occurring on the property. In addition, since the canal passes directly through Moon Moo Farm’s property, the farm’s ability to traverse between its two areas of farmland may be undermined by increased canal use. Opening the canal to the public would impose unjustified economic burdens on Moon Moo Farm that would significantly impair its farming operations.

Under the second *Kaiser* factor, restricting Moon Moo Farm’s ability to exclude others from the canal interferes with its “reasonable investment backed expectations” 444 U.S. at 180. The previous owner constructed the canal to improve the usage of the land, not to provide a

public shortcut down the river. R. at 5. It is fair to presume that Moon Moo Farm would have negotiated for acquisition of title for less than it invested if it were known that the burden of a navigational servitude existed on the property.

Lastly, the character of the government's action in the present case strongly indicates a taking. Imposing a navigational servitude may only be appropriate when the purpose of the government act is to improve the overall navigability of adjacent rivers. *See United States v. Chandler-Dunbar Co.*, 229 U.S. 53, 65 (1913) (holding that riparian land owners were not entitled to compensation for loss of excess flow of water due to government improvements to navigability of the stream). Here, the purpose of the government act is not to improve the navigability of the river. Instead, Appellants purpose for asserting the canal is subject to a servitude is to advance their civil action against Moon Moo Farm. Because allowing public access to privately constructed bodies of water strongly indicates a physical invasion akin to a taking, Appellants inability to justify this intrusion for navigational purposes suggests a taking would occur. Given the significant burdens faced by the farm compared to the limited public interest, imposing a navigational servitude on Moon Moo Farm's canal is improper.

B. Summary Judgment is Appropriate Because Appellants Have Not Provided Sufficient Evidence that the River was Substantially Impaired to Advance its Claim of a Navigational Servitude.

Although Congress may regulate any water that is "navigable in fact" and "relatively permanent," determining whether a navigational servitude exists requires a more narrow analysis. *Rapanos v. United States*, 547 U.S. 715, 716 (2006); *Kaiser*, 444 U.S. at 172-73. The diversion of interstate water into a navigable canal does not necessarily create a navigational servitude. *Vaughn*, 444 U.S. at 209. Instead, it must be proven that the canal impairs the navigability of the natural waterway so substantially that the canal must necessarily serve as a

substitute. *Vaughn*, 444 U.S. at 209. Ultimately, the Supreme Court of Louisiana held the proponents of the servitude survived summary judgment because they had provided an affidavit proving the substantial impairment of natural waterways. *Vermilion Corp. v. Vaughn*, 397 So. 2d 490, 494-95 (La. 1981).

Here, Appellants have produced no such evidence. The record does not indicate that Appellants have introduced any affidavits, depositions or factual pleadings to constitute a genuine issue of material fact regarding the navigability of the river. Even when evaluating the underlying facts most favorably to Appellants, the record precludes a finding of any material factual issue because it specifically states the river remains navigable. R. at 5.

C. Even if Appellants Produced a Genuine Issue of Material Fact, the River Has Not Been so Substantially Impaired to Justify Public Access to the Canal Under the Commerce Clause.

Navigational servitudes exist under the Commerce Clause “to assure that such streams *retain* their capacity to serve as continuous highways for the purposes of navigation in interstate commerce” *Kaiser*, 444 U.S. at 175. To determine whether a servitude exists, courts consider whether interstate waters “in their *natural condition* are in fact capable of supporting public navigation.” *Id.* (emphasis added). Therefore, courts must ensure public access to naturally occurring navigable waters while still “compel[ing] others to forebear from interfering with [property rights]” backed by the law. *United States v. Willow River Co.*, 324 U.S. 499, 502 (1945).

The law regarding navigational servitudes on privately constructed waterways provides much support for denying public access to Moon Moo Farm’s canal. As discussed, canals that substantially impair naturally occurring navigable waters may be subject to a servitude. *Vaughn*, 444 U.S. at 209. No such impairment exists because the Deep Quod River remains navigable.

In wake of *Vaughn* and *Kaiser*, federal circuits developed additional inquiries to guide analysis of the existence of navigational servitudes. For example, courts inquire whether the water to be subjected to the servitude was navigable in its natural state. *E.g. Dardar v. Lafourche Realty Co., Inc.*, 55 F.3d 1082, 1084 (5th Cir. 1995) (holding that landowner whose waterways were made navigable through private dredging may escape a servitude by showing the waterways were unnavigable in their natural state).

These decisions strongly indicate that the most important factor in evaluating the existence of a navigational servitude depends on whether a natural body of water is retained or improved by the governmental action. Neither of these policy concerns are invoked by Appellants' claims. Instead of respecting Moon Moo Farm's property rights, Appellants urge this Court to exercise colossal power and allow public access to the canal solely so they may proceed in a civil action. Such a request ignores the Lockean theory of property ownership upon which this country was founded. Granting a navigational servitude on the canal would set a precedent discouraging private lands owners from making improvements that may open the door to public access. In addition, establishing a navigational servitude in this case would be impermissible because allowing public access to the canal does not improve or replace the navigability of the Deep Quod River.

II. EVIDENCE OBTAINED BY RIVERWATCHER'S TRESPASS IS INADMISSIBLE IN A CIVIL ENFORCEMENT PROCEEDING.

Although the canal is subject to regulation under the CWA due to its navigability, such regulation does not allow for the use of illegally obtained evidence. To determine whether a facility has violated discharge regulations, the EPA Administrator or authorized representative may inspect the premises only upon presentation of their credentials. 33 U.S.C. § 1318(a)(2)(B)(ii) (2012). The EPA may choose to inspect a facility based on a citizen complaint,

however, inspections are to be done by authorized administrators to respect the owner's privacy and give them reasonable expectations for the inspection. U.S. Environmental Protection Agency, *Inspections of Concentrated Animal Feeding Operations*, attached at App'x F. Similarly, under the Resource Conservation and Recovery Act, only EPA authorized inspectors may enter premises where waste discharges are suspected. 42 U.S.C. § 6927(a)(1) (2012).

A. Appellants Did Not Comply with Statutory Inspection Procedures or Procure a Warrant, Therefore Suppression of the Illegally Obtained Evidence is Proper.

In addition to the requirement that inspections be done by authorized administrators, the Fourth Amendment warrant requirement applies. “The business man, like the occupant of a residence, has a constitutional right to go about his business free from unreasonable official entries upon his private commercial property.” *See v. City of Seattle*, 387 U.S. 541, 543 (1967). Although an exception to the warrant requirement exists for pervasively regulated businesses, it does not apply in this case. Only when inspection procedures are outlined by statute and provide “a constitutionally adequate substitute for a warrant” are such searches permitted. *Donovan v. Dewey*, 452 U.S. 594, 603 (1981). For codified inspection procedures to replace the need for a warrant, the terms of the statute must provide sufficient “certainty and regularity of its application” so that business owners are put on notice of possible inspections. *Id.* Ultimately, the *Donovan* Court held the Mine Safety and Health Act sufficiently substituted the warrant requirement because it specifically addressed issues associated with mining facilities. *Id.*

Here, both the CWA and RCRA provide specific statutes granting authority to the EPA Administrator to conduct inspections. 33 U.S.C. § 1318(a)(2)(B)(ii) (2012); 42 U.S.C. § 6927(a)(1) (2012). These statutes have a broad scope and apply to any business that pollutes. Therefore, these acts do not pass the *Donovan* threshold level of specificity to be considered an adequate substitute for a warrant requirement. Moreover, even if these statutes are somehow

specific enough to put Moon Moo Farm on notice of possible inspections, Riverwatcher's trespass in no way conformed with the inspection requirements. The record does not indicate that Riverwatcher acted under the authority of the Administrator of the EPA when he collected the runoff samples. Rather than report suspicion of discharge violations to the EPA, he performed an unsupervised inspection and gathered samples without any form of credentials. Therefore, Riverwatcher's trespass violated the statutory inspection requirements and the fruits of such intrusion were properly suppressed.

B. Suppression of the Evidence Obtained Through Riverwatcher's Trespass Ensures Compliance with the Fourth Amendment.

The Fourth Amendment prohibits unreasonable searches unsupported by a warrant or probable cause. U.S. Const. amend. IV. Admitting the samples obtained through trespass into evidence would incentivize the EPA and other governmental agencies to solicit ideological vigilantes to gather evidence. Instead, this Court should follow circuit decisions that have applied the Fourth Amendment exclusionary rule to civil enforcement proceedings. *See Smith Steel Casting Co. v. Brock*, 800 F.2d 1329, 1334 (5th Cir. 1986) (stating that the exclusionary rule excludes illegally obtained evidence when the social benefit outweighs the harm of the unlawful search); *see also Trinity Indus., Inc. v. OHSRC*, 16 F.3d 1455, 1462 (6th Cir. 1994) (adopting the Fifth Circuit's exclusionary rule standard).

To determine whether the exclusionary rule should apply, courts balance the social benefit of admitting the evidence against the harm resulting from the illegal search or seizure. In *INS v. Lopez-Mendoza*, the Court refused to apply the exclusionary rule, placing particular emphasis on the peculiar circumstances in which the INS obtains evidence later used in deportation proceedings. 468 U.S. 1032, 1049 (1984). Because "INS arrests routinely occur in crowded and confused circumstances," applying the exclusionary rule would severely "burden

the administration of the immigration laws.” *Lopez-Mendoza*, 468 U.S. at 1049. Therefore, an INS seizure does not violate the Fourth Amendment so long as INS agents comply with INS regulations. *Id.* Unlike in civil deportation hearings, the social benefit in the present case does not outweigh the exclusion of evidence obtained through criminal trespass.

Here, the exclusionary rule applies because the social benefit of allowing individuals to trespass upon private property to inspect for potential EPA violations does not outweigh the harm of endorsing trespasses. Instead, this situation comports with the one confronted by the Sixth Circuit in *Trinity Industries*. There, the court relied on the assertion in *Marshall v. Barlow’s Inc.*, that enforcement agencies must procure administrative search warrants or obtain consent from the land owner before inspecting the premises. *Trinity Industries*, 16 F.3d 1455 at 1460 (citing 436 U.S. 307, 325 (1978)). The underlying rationale for requiring administrative search warrants was that the process does not burden enforcement agencies so much that it conflicts with effectively fulfilling their duties. *Barlow’s*, 436 U.S. 307 at 321.

Applying the exclusionary rule in this case to prohibit the use of the evidence obtained by trespass is appropriate. Of course, there is great social benefit in reducing water pollution. However, this is appropriately achieved by complying with the Fourth Amendment warrant requirement and the statutory inspection requirements under the CWA and RCRA. Not only do these procedural safeguards protect business owners from unexpected intrusion, they also ensure that inspections are properly conducted and render accurate results. Allowing the use of evidence obtained during trespass would effectively authorize any person, regardless of credentials or expertise, to enter any business facility alleged to be polluting. Such a policy is not only unworkable, it greatly harms the privacy interests of business owners in various industries. Therefore, the minimal social benefit of admitting the evidence in this case does not

overcome the substantial harm that would result. Authorized inspectors, not private citizens, must be responsible for investigating CWA and RCRA violations.

III. BECAUSE MOON MOO FARM CANNOT BE PROPERLY CATEGORIZED AS A MEDIUM CAFO SUBJECT TO NPDES PERMITTING, IT IS NOT A POINT SOURCE UNDER THE CLEAN WATER ACT.

The CWA prohibits the “discharge of pollutants from a ‘point source’ into the waters of the United States without a permit issued under the terms of the National Pollutant Discharge Elimination System.” *Env’tl. Def. Ctr., Inc. v. U.S. E.P.A.*, 344 F.3d 832, 841 (9th Cir. 2003) (citing 33 U.S.C. §§ 1311(a), 1342). If a party applies for and obtains an NPDES permit, it may discharge from a point source in accordance with effluent limitations. 33 U.S.C. § 1342 (2012). The NPDES program requires permits only for point source discharges. *See League of Wilderness Defenders v. Forsgren*, 309 F.3d 1181, 1183 (9th Cir. 2002). To prevail in this action, Riverwatcher and the EPA must establish that Moon Moo Farm is a CAFO subject to NPDES permitting. Because Moon Moo Farm does not fit the statutory definition of a CAFO, nor does it discharge from a point source, it is not required to obtain an NPDES permit.

A. No Part of Moon Moo Farm’s Manure Application Process is a Point Source Subject to NPDES Permitting.

An Animal Feeding Operation (AFO) is a lot or facility where animals are “stabled or confined and fed . . . for a total of 45 days or more in any 12–month period” 40 C.F.R. § 122.23. An AFO becomes a Concentrated Animal Feeding Operation (CAFO) only if it fits the statutory definition of a Medium or Large CAFO, or by designation from a state director or EPA regional administrator. 40 C.F.R. § 122.23(b)(6). Because Moon Moo Farm neither fits the statutory definition of a Medium CAFO, nor was classified as one by the New Union director or EPA regional administrator, it should be classified as an AFO not subject to NPDES permitting.

Moon Moo Farm, with its 350 head of dairy cattle, meets the numerical threshold for a Medium CAFO. 40 C.F.R. § 122.23(b)(6). However, meeting the numerical specification only satisfies one requirement. The operation must also satisfy one of the following conditions:

(A) Pollutants are discharged into waters of the United States *through a man-made ditch, flushing system, or other similar man-made device*; or

(B) Pollutants are discharged *directly into waters* of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation. § 122.23(b)(6)(ii) (emphasis added).

In addition to animal confinement areas, a CAFO may include manure lagoons and “any equipment used to distribute or apply the animal waste product” *Cnty. Ass’n for Restoration of the Env’t v. Henry Bosma Dairy*, 305 F.3d 943, 949 (9th Cir. 2002). A CAFO may also consist of “any manure spreading vehicles, as well as manure storing fields, and ditches used to store or transfer the waste.” *Id.* at 955; see *Assateague Coastkeeper v. Alan & Kristin Hudson Farm*, 727 F. Supp. 2d 433, 434 (D. Md. 2010) (finding that poorly placed poultry manure stockpiles next to drainage ditch led to discharge). Although these decisions explain that storage lagoons and spreading equipment are part of a CAFO, each case involved a discharge caused directly from the storage and application of manure.

Moon Moo Farm’s storage and manure application equipment never directly discharged into waters of the United States. The farm collects manure and liquid waste “through a series of drains and pipes from the cow barn” and stores the mixture in an outdoor lagoon. R. at 4-5. The storage lagoon is designed to hold a maximum capacity of manure without overflowing during a 25-year rainfall event. R. at 5. Tractors haul and spread the mixture over one hundred and fifty acres of Bermuda grass. R. at 5. Because no step of the manure storage or application process discharges directly into waters of the United States, Moon Moo Farm has no point source requiring an NPDES permit. If manure waste entered a drainage ditch from a pipe leak or a

lagoon overflow, then § 122.23(b)(6)(ii) would regulate these discharges. The record does not reflect any defect in any portion of Moon Moo Farm’s manure storage or application. Thus, the runoff observed does not reflect the type of direct discharge that can trigger a CAFO classification. § 122.23(b)(6)(ii). Rather, the runoff exemplifies the exact type of situation the EPA intended to classify as an agricultural stormwater discharge.

B. Agricultural Stormwater Discharges Are Not Point Sources Subject to NPDES Regulation.

Congressional intent, EPA guidelines and judicial decisions specify that agricultural stormwater run-off is not considered a point source subject to NPDES permitting. If Congress has “directly spoken to the precise question at issue . . . the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984). Congress specifically stated in the definition of point source, “this term does not include agricultural stormwater discharges and return flows from irrigated agriculture.” 33 U.S.C. § 1362(14) (2012). Further, Congress noted that the EPA should not force state programs to require permits “for discharges composed entirely of return flows from irrigated agriculture.” 33 U.S.C. § 1342(1)(1). Under a *Chevron* framework, Congress’ intent to exclude agricultural stormwater runoff as a point source subject to NPDES permitting is unambiguous. *Alt v. U.S. E.P.A.*, 979 F. Supp. 2d 701, 707 (N.D.W. Va. 2013).

Under EPA regulations, any discharge of manure, litter or process wastewater to waters of the United States from a CAFO is subject to NPDES permit requirements “*except where it is an agricultural storm water discharge.*” 40 C.F.R. § 122.23(e) (emphasis added). Where “manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices . . . a precipitation-related discharge of manure from land areas under the

control of a CAFO” is an agricultural stormwater discharge. 40 C.F.R. § 122.23(e). Courts have upheld the validity of the agricultural stormwater discharge exception, finding that it does not upset the general purpose of the Clean Water Act. *Waterkeeper Alliance, Inc. v. U.S. E.P.A.*, 399 F.3d 486, 509 (2d Cir. 2005); see *Fishermen Against the Destruction of the Env’t v. Closter Farms, Inc.*, 300 F.3d 1294, 1297 (11th Cir. 2002) (holding that a property owner who experiences stormwater discharge need not obtain an NPDES permit).

Congress and the EPA removed liability for agriculture-related discharges primarily caused by nature. *Waterkeeper*, 399 F.3d at 508-09. The fact that non-regulated agricultural stormwater discharges are distinguished from regulated point source discharges confirms that the former cannot trigger a CAFO classification under § 122.23(b)(6)(ii). Given this purpose, a single agricultural stormwater discharge does not force an AFO to be classified as a Medium CAFO.

C. Moon Moo Farm Experienced an Agricultural Stormwater Discharge, Not a Discharge Requiring a NPDES Permit.

Agricultural stormwater discharges are distinguished from discharges that occur during rain caused by non-weather related events. In *Concerned Area Residents for Env’t (CARE) v. Southview Farm*, plaintiffs accused a dairy farm with “enormous manure operations . . . largely performed through the use of storage lagoons” of polluting animal waste. 34 F.3d 114, 116 (2d Cir. 1994). The Second Circuit ruled that manure spreading vehicles caused the discharge independent of the existing rainfall. *Id.* at 121. The court later clarified that manure discharges occurring on rainy days are “considered *either* a CAFO discharge that is subject to regulation *or* an agricultural stormwater discharge that is not subject to regulation.” *Waterkeeper Alliance, Inc. v. U.S. E.P.A.*, 399 F.3d 486, 508 (2d Cir. 2005) (emphasis added). As the Second Circuit

confirmed in *Waterkeeper*, whether a discharge is regulable depends on the primary cause of the discharge. 399 F.3d at 508.

1. The April 12 discharge was primarily caused by precipitation and not by over-application of manure.

The discharge Riverwatcher observed on April 12 was an agricultural stormwater discharge because it was primarily caused by a precipitation related event. Between April 11 and April 12, a “significant storm event” occurred in the Farmville Region, in which two inches of rain fell. R. at 6. The observed runoff flowed “from the fields through a drainage ditch into the Queechunk Canal.” R. at 6. Nothing in the record supports a supposition that similar discharges from Moon Moo Farm ever took place before April 12. Unlike the dairy farm in *CARE*, the record does not indicate the farm excessively applied manure to its fields. Although Riverwatcher alleges that the drainage ditch connected to the canal constitutes a point source, agricultural stormwater discharges are exempt from regulation even when the discharges come from point sources. *Alt*, 979 F. Supp. 2d at 714.

2. Although Moon Moo Farm is not obligated to operate in accordance with a site-specific nutrient management practice, the farm satisfies this requirement by adhering to its nutrient management plan.

For the agricultural stormwater discharge exemption to apply, CAFOs must apply manure “in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients.” 40 C.F.R. § 122.23. Because only “land application discharges *from a CAFO* are subject to NPDES requirements,” a plain reading of 40 C.F.R. § 122.23 suggests that AFOs are not required to have site-specific nutrient management practices. Nothing in the EPA regulations suggest that AFOs are to be regulated in a similar fashion as Medium or Large CAFOs. Further, “site specific nutrient management practices” are required under NPDES permits, which non-regulated AFOs have no obligation to obtain. 40 C.F.R. §

122.42(d). To suggest otherwise would require unregulated AFOs to follow site specific nutrient management practices without having a permit that specifies what those practices are.

Even if AFOs are required to abide by site specific nutrient management practices, the agricultural stormwater discharge exemption applies to Moon Moo Farm. The record indicates that Moon Moo Farm submitted a Nutrient Management Plan (NMP) with the Farmville Regional Office of the State of New Union Department of Agriculture. R. at 6. NMPs embody relevant site specific nutrient management practices and are the “*sine qua non* of the ‘regulation, standard, plan, or program’ established to regulate land application discharges.” *Waterkeeper*, 399 F.3d at 504. In *Waterkeeper*, the Second Circuit emphasized that since “site specific nutrient management practices . . . ensure appropriate *agricultural* utilization,” they should be “tethered to agricultural endeavors.” *Id.* Thus, site specific nutrient management practices should focus on a farm’s agricultural purposes when establishing application rates.

Any scrutiny of Moon Moo Farm’s site specific management practices must consider its agricultural endeavors. The farm’s NMP included seasonal manure application rates and “a calculation of expected uptake of nutrients by the crops” R. at 5. Moon Moo Farm applied manure at rates consistent with the NMP at all relevant times. R. at 6. The farm applies liquid manure to improve output of Bermuda Grass, a vital crop used as silage to feed livestock. R. at 6. Such production of silage allows the farm to cut costs minimizing the need to purchase animal feed at market rates. The ability of a farm to efficiently produce silage ensures its economic viability and continued operation. Reusing manure and acid whey to increase silage output is a valid agricultural endeavor that comports with the EPA’s goals. Therefore, the agricultural stormwater discharge exception should apply because Moon Moo Farm’s NMP satisfies site specific nutrient management practices.

3. Moon Moo Farm should not be held responsible for deficient state regulation.

Moon Moo Farm follows traditional practices used by farmers in New Union since the 1940s. R. at 6. No portion of the NMP prevented Moon Moo Farm from applying manure during a rain event. R. at 7. If this Court finds any deficiencies with the farm's NMP, the state of New Union or the EPA should be held responsible for lack of oversight.

The State of New Union, through its environmental and agricultural regulatory bodies, plays a "key leadership role in implementing programs to ensure that AFOs take the important steps needed to implement sound management practices." National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176-01, 7182 (February 12, 2003) *attached at App'x C*. States with EPA authorized NPDES programs are "principally responsible for implementing and enforcing" CAFO regulations. *Id.* at 7231; *see* 40 C.F.R. § 122.23(c)(1)(i). Specifically, authorized states lacking nutrient management standards were required to develop technical standards for nutrient management practices consistent with 40 CFR 412.4(c)(3). 68 Fed. Reg. at 7231. In authorized states like New Union, nutrient management standards should have been submitted for EPA review within one year of the Preamble to the CAFO Rule, or February 12, 2004. 40 CFR § 123.62.

The State of New Union Department of Agriculture (DOA) does not ordinarily review submitted NMPs. R. at 5. Although the DOA has the authority to reject insufficient NMPs, the record does not indicate that Moon Moo Farm's NMP ever received rejection or criticism. Moon Moo Farm applied manure in accordance with what it thought was a fully compliant NMP. If the DOA lacked nutrient management standards or failed to review the NMP, Moon Moo Farm should not be held accountable for such regulatory failures.

Lastly, at no point did the EPA regional administrator or New Union director conduct an on-site inspection of Moon Moo Farm's operation. The EPA specifically stated that no AFO should be classified as a CAFO without an on-site inspection to determine if the operation should be regulated under the permit program. 40 C.F.R. § 122.23(c)(3). Thus, Moon Moo Farm cannot be properly classified as a CAFO subject to regulation without first undergoing an on-site inspection.

D. Even if the Agricultural Stormwater Discharge Exception Does Not Apply, Moon Moo Farm is Entitled to Take Corrective Actions Before Being Designated as a CAFO.

The EPA encourages states to create proactive programs to fix the problems of small and medium operations “in advance of compelling the facilities to apply for NPDES permits.” National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. at 7232. The EPA intended to “provide an opportunity to address the cause of the discharge before defining or designating the operation a CAFO.” *Id.* Although an AFO may experience “an unexpected situation that could be the basis” for a CAFO designation, farms are entitled to take proactive measures to prevent the repeat of such occurrence. *Id.* “Well-reasoned views of the agencies implementing a statute ‘constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance’” *Bragdon v. Abbott*, 524 U.S. 624, 642 (1998) (citing *Skidmore v. Swift & Co.*, 323 U.S. 134, 139 (1944)).

Even if agricultural stormwater discharges are misconstrued as being able to trigger a CAFO designation, Moon Moo Farm should be entitled to take corrective measures to reduce repeat discharges. It would be unfair to classify the farm as a CAFO subject to permitting for preventable discharges. The EPA could have identified and suggested a number of curative

actions. Preventive measures ensure stormwater discharges, similar to the one observed on April 12, do not recur. Affording Moon Moo Farm the opportunity to take preventive measures before being classified as a Medium CAFO aligns with the EPA's intent for regulating such entities.

IV. MOON MOO FARM IS NOT SUBJECT TO A CITIZEN SUIT UNDER EITHER RCRA §§ 7002(A)(1)(A) or (A)(1)(B).

Congress' growing concern over reducing waste and unsalvageable materials led to the promulgation of the Resource Conservation and Recovery Act (RCRA). 42 U.S.C. § 6901(a)(4) (2012). RCRA's primary purpose is to encourage resource conservation and reduce waste disposal to landfills. 42 U.S.C. § 6941 (2012). To achieve this end, RCRA explicitly prohibits "open dumping" of solid and hazardous wastes. 42 U.S.C. § 6945(a) (2012). Citizens may file civil suits for violations of any RCRA regulation. 42 U.S.C. § 6972(a)(1)(A). Citizens may also file suit against any generator or operator contributing to the handling or disposal of solid waste that "may present an imminent and substantial endangerment to health or the environment." 42 U.S.C § 6972(a)(1)(B).

A. Riverwatcher's Suit Under RCRA § 7002(a)(1)(A) Should Be Dismissed Because EPA Landfill Guidelines Restricting Open Dumping Do Not Govern Moon Moo Farm's Application of Manure and Acid Whey.

The lower court dismissed Riverwatcher's claim under § 7002(a)(1)(A) on motion for summary judgment because he failed to show an issue of material fact as to whether the manure mixture constituted a "solid waste" subject to EPA landfill regulations. R. at 11.

1. Moon Moo Farm's land application of manure and whey does not constitute the disposal of solid waste under RCRA.

"The starting point for interpreting a statute is the language of the statute itself."

Consumer Product Safety Comm'n v. GTE Sylvania, Inc., 447 U.S. 102, 108 (1980). RCRA defines "solid waste" as "any garbage, refuse, sludge . . . and other discarded material . . .

resulting from industrial, commercial, mining, and agricultural operations” not included under RCRA’s exemptions. 42 U.S.C. § 6903(27) (2012). Moon Moo Farm’s activity falls under a RCRA exemption if Riverwatcher succeeds on their claim that the farm discharged from a point source subject to NPDES permitting. *Id.* Moon Moo Farm’s activity, however, does not fall within this exemption. Thus, for the farm’s land application of manure and acid whey to constitute a solid waste, it must be considered a discarded material.

RCRA does not define discarded material. The dictionary defines “discard” as “cast aside, reject, abandon, give up.” *Safe Air*, 373 F.3d at 1041. From this ordinary definition, discarded materials cannot include materials “destined for beneficial reuse or recycling in a continuous process by the generating industry itself.” *Am. Min. Congress v. U.S. E.P.A.*, 824 F.2d 1177, 1186 (D.C. Circ. 1987). Thus, “[t]he key to whether a manufactured product is a ‘solid waste,’ then, is whether that product ‘has served its intended purpose and is no longer wanted’” *Ecological Rights Found. v. Pacific Gas and Elec. Co.*, 713 F.3d 502, 515 (9th Cir. 2003) (citing H.R. Rep. No. 94-1491(I), pt. 1, at 2 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6238, 6240).

In *Oklahoma v. Tyson Foods, Inc.*, the court held the farm’s application of poultry litter as a fertilizer did not constitute solid waste because it was intended for beneficial reuse. No. 05-CV-0329-GKF-PJC, 2010 WL 653032, at *11 (N.D. Okla. Feb. 17, 2010). The poultry litter could be beneficially reused because it had “both a market and a market value” *Id.* at *7. The regional practice to reuse litter as a cheap fertilizer benefits the farmers because the application provides nutrients to the soil and reduces erosion. *Id.* at *11. The affordability of recycled litter compared to commercial fertilizer contributes to its popularity. *Id.* Poultry litter increases grass yields for livestock, allowing cattle farms to quadruple production at no

additional expense. *Tyson*, 2010 WL 653032 at *11. This evidence led the court to hold that the farm intended to apply the litter for beneficial reuse. *Id.* Thus, the poultry litter did not constitute solid waste. *Id.*

Similarly, because Moon Moo Farm intended to benefit from the fertilizer's reuse, the mixture cannot be considered a solid waste. The record reflects not only a well established standard in New Union of applying manure and whey to fields, but also that the Deep Quod watershed itself is a "heavily farmed" agricultural hub. R. at 6-7. The priceless fertilizer recycles the farm's manure and acid whey from a local yogurt producer, reducing the need to purchase commercial fertilizers. R. at 5. Moon Moo Farm's application nourishes the farm's soil with the vital nutrients, facilitating silage growth to provide for its additional livestock. R. at 5. The mixture's nutritional properties, affordability and consistent reuse among New Union farms for the past 75 years demonstrate the mixture has both a market and market value. Since Moon Moo Farm benefits from reusing the mixture, the farm's application could not have been for discarding purposes. Thus, the mixture does not constitute solid waste.

2. Even if the mixture constitutes a solid waste, Moon Moo Farm is exempt from the EPA's solid waste disposal guidelines.

The EPA set regulations to determine when a solid waste disposal facility illegally engages in open dumping. 40 C.F.R. § 257.1(a)(2). The open dumping regulations, however, do not apply to "agricultural wastes ... returned to the soil as fertilizers" or "manure spreading operations" 40 C.F.R. § 257.1(c)(1); 40 C.F.R. § 257.2.

Courts look to the actual use of the agricultural waste to determine whether it returned to the soil as a fertilizer or soil conditioner. *Water Keeper Alliance v. Smithfield Foods*, Nos. 4:01-CV-27-H(3), 401-CV-30-H(3), 2001 WL 1715730, at *4 (E.D.N.C. Sept. 20, 2001). If applied for fertilization purposes it falls within the exemption. *Water Keeper Alliance*, 2001 WL

1715730 at *5. Alternatively, it encompasses a disposed solid waste if applied in such large quantities that it destroys the fertilizer's utility. *Id.*

For Riverwatcher's claim to survive summary judgment, they must provide substantial evidence that a dispute of material fact exists as to whether Moon Moo Farm applied the agricultural waste for discarding purposes. Riverwatcher submitted expert testimony that the application of fertilizer decreased the soil pH and prevented the crop's nutrient uptake. R. at 6. Their expert based her opinion on the mixture's pH of 6.1 without ever testing the soil contents. R. at 6. She not only failed to consider the entire scope of nitrogen uptake factors, but also based her conclusion on inaccurate science. First, the preferred soil pH for Bermuda Grass to achieve maximum availability of nutrients ranges from a pH 5.5 to 6.2. Dr. C.S. Snyder and Dr. M.M. Eichhorn, Jr., *Nitrogen, Phosphorus, Potassium, Sulfur and Magnesium for Bermuda Grass Pastures and Hay Meadows*, The Potash & Phosphate Inst., (May 1998), *attached at App'x B*. Without testing the soil contents Riverwatcher cannot establish that the mixture, which fell within the pH range for maximum uptake, prevented the Bermuda Grass from processing the nitrogen. Further, the crop's ability to take in nitrogen does not depend solely on the fertilizer's pH. *Id.* Soil pH, application rates, plant growth stage, amount of forage, and other nutrients and minerals found in the soil all contribute to Bermuda Grass' ability to process nitrogen. *Id.* Regardless of Riverwatcher's reliance on faulty science and speculative inferences, a substance does not become a solid waste when applied in accordance with its intended beneficial use, "merely because some aspect of the product is not fully utilized." *Tyson*, 2010 WL 653032, at *10. The fact that the field's nitrogen uptake may have decreased as a result of the application does not render the fertilizer invaluable. Riverwatcher failed to show the mixture was applied in such large quantities that it destroyed its usefulness. Thus, Riverwatcher does not have authority

to maintain a citizen suit against the farm because Moon Moo Farm applied the agricultural waste for beneficial reuse as a fertilizer.

3. Even if the agricultural waste exemption does not apply, Moon Moo Farm has not engaged in open dumping.

The EPA defines open dumping as solid waste disposal that does not comply with landfill guidelines. 40 C.F.R. § 257.2. The EPA landfill guidelines regulate disposal activities affecting floodplains, groundwater, and food-chain crops. 40 C.F.R §§ 257.3-1, 257.3-4, 257.3-5. To maintain a citizen suit under § 7002(a)(1)(A), one must allege an *ongoing* open dumping violation. H.R. 1016, 96th Cong., at 22 (1980), *reprinted in* 1980 U.S.C.C.A.N. 6125 (emphasis added). Claims based entirely on past conduct should be dismissed. Riverwatcher’s open dumping claim cannot survive summary judgment because the record mentions only one instance that occurred over nineteen months ago, which could amount to an open dumping violation. R. at 6. The claim also fails because the farm did not violate the EPA landfill guidelines.

Riverwatcher failed to provide substantial evidence indicating Moon Moo Farm must comply with EPA regulations on floodplains. The EPA defines floodplains as “the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, which are inundated by the base flood.” 40 C.F.R. § 257.3-1(b)(2). The record does not reflect that the farm has a flat area adjoining inland and coastal waters. Rather, the evidence implies the land does not act as a floodplain adjoining waters, but merely diverts water to a separate course. R. at 5. Riverwatcher never identified New Union’s base flood or demonstrated that the base flood would inundate Moon Moo Farm’s land. The canal exists for the sole purpose of preventing flooding at the river bend. R. at 5. Riverwatcher cannot show there has been a flood at the river bend since the canal was built or that the canal itself has ever flooded. Thus, Moon Moo Farm cannot be considered a floodplain.

Riverwatcher's claim that Moon Moo Farm violated EPA groundwater regulations also fails because they did not establish that the manure application led to groundwater contamination. "Groundwater means the water below the land surface" 40 C.F.R. § 257.3-4(c)(3). The liquid leaking from the ditch cannot constitute contamination of groundwater because the canal and river sit above the land surface. Although Riverwatcher's expert opined that the application of manure resulted in groundwater contamination, nothing in the record provides a rational basis for her opinion. R. at 6. She never conducted studies on the land's hydrology to verify that groundwater below the farm's surface traveled to the river. Further, she never tested the soil on the property to determine if nitrates leached into the ground. Thus, Riverwatcher failed to establish an issue of fact as to whether the manure application led to groundwater contamination.

Riverwatcher also did not produce sufficient evidence that the farm violated EPA guidelines concerning land used for food-chain crops or public safety. EPA landfill regulations pertaining to food-chain crops provide pH standards only for fertilizers with cadmium, not those consisting only of manure and acid whey. 40 C.F.R. § 257.3-5(a). Thus, the pH of the farm's manure did not violate EPA standards. Further, the only way Moon Moo Farm could have violated public safety regulations is if it allowed "uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site." 40 C.F.R. § 257.3-8(d). The farm restricts public access by placing "no trespassing" signs on its private property, consistent with its contention that the canal is not subject to a public right of navigation. R. at 5.

4. Neither Congress nor the EPA intended the application of fertilizer and soil conditioner to be considered a solid waste practice subject to RCRA.

Dismissing Riverwatcher's claim is consistent with legislative history, congressional intent and public policy. Congress explicitly stated that "agricultural wastes which are returned

to the soil as fertilizers or soil conditioners are not considered discarded materials” because RCRA was enacted to address landfill waste disposal problems, not recycled agricultural wastes. *Safe Air*, 373 F.3d at 1045-46 (quoting H.R. Rep. No. 94-1491, at 3, *reprinted in* 1976 U.S.C.C.A.N. at 6239–41). Because Moon Moo Farm’s reuse of the mixture reduces disposable waste generated by the dairy industry, the farm acted in accordance with RCRA’s purpose. Requiring manure to be dumped at landfill sites strips the material of its value, despite well-established standards for its ecologically and economically sustainable reuse.

The EPA’s landfill regulations also exclude recycled agricultural wastes. 40 C.F.R. § 257.1(c)(1). When Congress delegates authority to an administrative agency, courts typically uphold the agency’s statutory interpretation. *Pauley v. BethEnergy Mines, Inc.*, 501 U.S. 680, 696 (1991). Further, classifying manure as a solid waste has major implications for livestock operations. Manure handling and silage production are currently regulated under an umbrella of government entities, including state departments, the USDA, and the EPA. *See generally* Comprehensive Nutrient Mgmt. Plans, GM-190, Part 405 (U.S. Dep’t of Agric. 2009), *attached at* App’x A. Manure handling guidelines addressing silage production, nitrogen runoff and groundwater pollution are already covered under the USDA’s Natural Resource Conservation Practice Standards. Natural Res. Conservation Serv., Code 590 (2011), *attached at* App’x E; Conservation Serv., Code 512 (2010), *attached at* App’x D. Operating under both EPA and USDA standards creates confusion and undue burden on a crucial industry by imposing duplicative or contradictory regulations. Thus, legislative history, congressional intent and public policy support dismissal of the claim.

B. Appellants' Failed to Establish that the Fertilizer May Present an Imminent and Substantial Endangerment Requiring Redress Under RCRA § 7002(a)(1)(B).

Unlike § 7002(a)(1)(A), § 7002(a)(1)(B) does not require a violation of RCRA or EPA regulation. *Browning v. Flexsteel Indus. Inc.*, 959 F. Supp. 2d 1134, 1147 (N.D. Ind. 2013). Citizens may file suit against anyone contributing to the handling or disposal of solid waste that “may present an imminent and substantial endangerment to health or the environment.” 42 U.S.C. § 6972 (a)(1)(B). Relief is improper if the law provides a suitable remedy. *Davies v. Nat'l Co-op. Refinery Ass'n*, 963 F. Supp. 990, 999 (D.C. Kan. 1997). Courts only grant equitable relief when necessary to eliminate risks caused by waste. *Dague v. City of Burlington*, 935 F.2d 1343, 1355 (2d Cir. 1991).

To survive summary judgment, Appellants must produce sufficient evidence to show the farm (1) is a transporter or generator of solid waste; (2) “contributed to or is contributing” to the disposal, storage, handling, or transportation of solid waste; and (3) “the solid waste may present an imminent and substantial endangerment to health or the environment.” *See Interfaith Cmty. Org. v. Honeywell Intern. Inc.*, 399 F.3d 248, 258 (3d Cir. 2005).

1. No reasonable basis exists for classifying the mixture as a solid waste.

Appellants' claim fails under prongs one and two because the mixture is not a solid waste. The first and second prongs suggest that only “facilities that are *intended* to be used for disposal, treatment or storage of waste” fall under RCRA § 7002(a)(1)(B). *Acme Printing Inc. v. Menard, Inc.*, 870 F. Supp. 1465, 1477 (E.D. Wis. 1994). Disposed materials amounting to solid waste cannot include materials destined for beneficial reuse, such as Moon Moo Farm's mixture. *Am. Min.*, 824 F.2d at 1186. Further, the farm's application falls under the agricultural waste exception. 40 C.F.R. § 257.1(c)(1).

2. An imminent and substantial endangerment will not result if this Court declines to grant relief.

All undefined RCRA terms are defined by their plain meaning. 40 C.F.R. § 258.2. The language “may present” encompasses only current and potential future harms. *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 486 (1996). Courts have interpreted “substantial” to mean serious, while “endangerment” implies a present threat of harm, rather than the mere possibility. *Parker v. Scrap Metal Processors, Inc.*, 386 F.3d 993, 1015 (11th Cir. 2004); *Crandall v. City and Cnty. of Denver, Colo.*, 594 F.3d 1231, 1238 (10th Cir. 2010). Thus, the phrase “may present an imminent and substantial endangerment” requires a showing that an existing threat might pose a serious risk of harm. *Crandall*, 594 F.3d at 1238.

- a. Appellants cannot show Moon Moo Farm’s runoff contaminated Farmville’s water supply.

In *Davies v. National Co-op. Refinery Ass’n*, the court criticized plaintiffs for their failure to produce sufficient evidence to survive summary judgment that defendant’s groundwater pollution presented an imminent and substantial endangerment to human health. 963 F. Supp. at 999-1000. After testing revealed plaintiffs’ groundwater exceeded maximum contaminant levels, the Department of Health and Environment confirmed a risk to health and advised plaintiffs not to consume the well water. *Id.* at 993. Soil samples obtained during the comprehensive investigation revealed widespread contamination on the property, confirming defendants contaminated the groundwater. *Id.* at 995. The groundwater from the contaminated wells originated from one aquifer, which supplied the region’s drinking water to over 530,000 people. *Davies*, 963 F. Supp. at 996. Plaintiffs’ expert provided detailed information on migration pathways to explain how the contaminants in the soil migrated downward to the aquifer containing the region’s drinking water. *Id.* at 995-96. The evidence, however, did not

address the likelihood that the aquifer contained levels of contaminants similar to those found a mile away in plaintiffs' groundwater. *Davies*, 963 F. Supp. at 999. Therefore, the court could not reasonably conclude the defendants polluted the region's drinking water. *Id.*

Here, the record does not show that Moon Moo Farm polluted Farmville's drinking supply. Appellants allege that unprocessed nutrients from the farm's soil polluted the Deep Quod River through groundwater and runoff. R. at 6. However, their failure to test the farm's soil precludes evidence that excess nitrates contaminated the soil. R. at 6. Appellants did not provide any evidence on groundwater contamination pathways to demonstrate that excess nutrients leached through the soil to the Deep Quod River to contaminate Farmville's water supply. Further, the samples collected by Riverwatcher fail to represent the true impact of the farm's runoff flowing downstream to the drinking supply because Riverwatcher obtained them directly from the drainage ditch. R. at 6. More than a mere assumption that contaminants flowed downstream and polluted the water supply is required to create a material issue of fact. *See Davies*, 963 F. Supp. at 999-1000. Even Riverwatcher's expert opined that she could not determine whether Moon Moo Farm caused the nitrate advisory. R. at 7. Thus, insufficient evidence exists to conclude the farm's mixture application contaminated Farmville's water supply.

The fact that Farmville issued five nitrate advisories prior to Moon Moo Farm's use of the mixture suggests multiple actors could have caused the advisories. R. at 7. The only share of Moon Moo Farm's liability stems from the April 12, 2013 discharge; however, Appellants attempt to hold the farm liable for a nitrate advisory issued over four months prior to its discharge. R. at 6. In cases with multiple tortfeasors, a right of contribution exists to protect a tortfeasor from "paying more than his equitable fair share of the common liability"

Restatement (second) of Torts § 886A (1979). “It is not necessary that they act in concert or in pursuance of a common design, nor is it necessary that they be joined as defendants.” *U.S. v. Conservation Chemical Co.*, 619 F. Supp. 162, 225 (W.D. Mo. 1985). “Courts are expected to do what is fair and equitable under the circumstances” by ensuring “no tort-feasor can be required to make contribution beyond his own equitable share of liability.” *Id.* It would be inequitable for this Court to hold only Moon Moo Farm liable for the high nitrate levels.

- b. Appellants cannot show exposure to the nitrate contaminated water poses an imminent and substantial endangerment.

In *Davies*, plaintiffs’ expert evaluated the risk to human health from exposure to the contaminated well water. 963 F. Supp. at 996. Using the American Petroleum Institute’s risk assessment model, he calculated the carcinogenic health risk to range between 219 to 650 times greater than acceptable. *Id.* Plaintiffs failed to establish that residents were exposed to a health risk because they never addressed the likelihood that the aquifer contained similar levels of contaminants. *Id.* at 999. The evidence showed only that plaintiffs were at risk, but their risk dematerialized when the government advised against drinking the contaminated well water. *Id.* Thus, the court found no issue of material fact of an imminent endangerment to health. *Id.*

Similarly, Appellants failed to produce evidence that exposure to the nitrate-rich water poses a substantial risk to human health. The evidence does not suggest a current threat of harm. The evidence shows only that any risk of harm occurred when the nitrate advisory was issued approximately one year ago. R. at 7. Further, lab results showed “highly elevated levels of nitrates and fecal coliforms,” but Appellants did not clarify if these results posed a substantial health risk. R. at 6. Farmville’s water authority stated the nitrate in the water would not be harmful to anyone above the age of two. R. at 6. Because only infants are at risk from exposure, there is a low health risk of harm, insufficient to meet the third prong. *See Davies*, 963 F. Supp.

at 999. Appellants also err by not producing evidence addressing the likelihood that infants in Farmville will be exposed to risk. A warning not to drink the water is sufficient to eliminate the risk of exposure. *Id.* The warning and recommendation to use an alternative source of water thus eliminated the infant's risk of exposure.

CONCLUSION

Moon Moo Farm's canal does not replace the Deep Quod River as a navigable interstate body of water; therefore the public may not access it under the navigational servitude doctrine. Consequently, evidence obtained during Appellant's trespass on the canal is inadmissible in this action because it was conducted without a warrant and in violation of CWA and RCRA inspection procedures.

Moon Moo Farm cannot be correctly classified as a Medium CAFO subject to NPDES permitting because the discharge Riverwatcher observed was not the type intended to trigger a CAFO classification. Rather, the farm experienced an agricultural stormwater discharge, which has been exempt from the definition of a point source and distinguished from discharges that require an NPDES permit. Even if AFOs are too required to abide by site specific nutrient management practices, the EPA and State of New Union is responsible for failing to recognize any deficiencies in Moon Moo Farm's NMP. Lastly, even if the agricultural stormwater discharge does not apply in this case, Moon Moo Farm is entitled to take corrective actions before being designated as a CAFO.

Riverwatcher's claim under RCRA § 7002(a)(1)(A), that Moon Moo Farm's application of fertilizer constituted an open dumping of solid waste in violation of EPA guidelines must be dismissed because Appellants' have failed to provide sufficient evidence that an issue of material fact exists. Appellants' claim under RCRA § 7002(a)(1)(B) also must fail because they failed to

show an issue of material fact as to whether the fertilizer may present an imminent and substantial endangerment to health.

APPENDIX A

*United States Department of Agriculture
Comprehensive Nutrient Management Plan
GM-190, Part 405*

Subpart A - General

405.0 Purpose

Part 405 establishes the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) national policy for Comprehensive Nutrient Management Plans (CNMP).

405.1 Background

- A. In 1999, the Unified National Strategy for Animal Feeding Operations directed the USDA and U.S. Environmental Protection Agency (EPA) to work together to address environmental and public health issues associated with animal feeding operations (AFO). The Strategy also defined CNMP elements and the relationship between voluntary and regulatory programs.
- B. The Clean Water Act (CWA) gives the EPA authority to regulate point source dischargers of pollutants into waters of the United States. Agricultural operations that discharge pollutants, via a point source, into waters of the United States must have a National Pollutant Discharge Elimination System (NPDES) permit or face the risk of regulatory action. Under the CWA, a concentrated animal feeding operation (CAFO) is defined as a point source.
- C. EPA considers the animal production area of a CAFO (manure storage facilities, animal confinement areas) as a point source.
- D. USDA's goal is for AFO/CAFO owners and operators to take voluntary actions to minimize potential air and water pollutants from storage facilities, confinement areas, and land application areas. The objective of a CNMP is to provide AFO owners and operators with a plan to manage manure and organic by-products by combining conservation practices and management activities into a conservation system that, when implemented, will control soil erosion and protect air and water quality. USDA has an associated goal of assisting CAFOs to develop CNMPs that can be used for NPDES permitting purposes.
- E. The CNMP shall not result in excessive air emissions and/or negative impacts to air quality resource concerns if it is feasible to mitigate these effects.
- F. The CNMP documents agricultural utilization of nutrients according to science-based management strategies and, thus, meets the criteria for the stormwater exemption of the CWA on fields receiving manure or organic by-products.
- G. USDA and EPA have agreed that the CNMP is acceptable documentation for those seeking an NPDES permit, with the addition of chemical handling provisions. The CAFO decisionmaker (principal controlling producer or landowner) can submit the CNMP as part of an NPDES permit application.
- H. The nationally recognized Manure Management Planner (MMP) is the only NRCS-supported technology software for use in developing CNMP output products. MMP uses national CNMP templates, as modified and adopted by each State, to generate CNMP output documents.
- I. Refer to General Manual (GM), Title 180, Part 409 for policy regarding conservation planning. GM-190, Part 405 contains policy for conservation nutrient management planning. GM-190, Part 405, Subpart B, Policy, Section 405.11, Minimum Technical Requirements Essential for Providing CNMP Technical Assistance Associated with Comprehensive Nutrient Management Plans, supersedes/replaces pertinent sections of GM-180, Part 409, Section 409.10.
- J. State Conservationists are allowed discretion in rare and specific cases. (see Section 405.31.) In these cases, the completed plan is not a CNMP, but is acceptable for technical and/or financial assistance. The completed plan is not sufficient documentation for an NPDES permit.

405.2 Authorities

General Manual, Title 130, Part 400, Subpart B, Delegations of Authority, Section 400.13, assigns functional responsibilities for CNMPs. (see GM-190, Part 405, Subpart C, Responsibilities.)

405.3 Definitions

- A. A CNMP is a conservation plan for an AFO that:
 - (1) Must include the following:
 - (i) The production area, including the animal confinement, feed and other raw materials storage areas, animal mortality facilities, and the manure handling containment or storage areas.

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- (ii) The land treatment area, including any land under control of the AFO owner or operator, whether it is owned, rented, or leased, and to which manure or process wastewater is, or might be, applied for crop, hay, pasture production, or other uses.
- (2) Meets NRCS Field Office Technical Guide (FOTG) Section III quality criteria for water quality (nutrients, organics, and sediments in surface and groundwater) and soil erosion (sheet and rill, wind, ephemeral gully, classic gully, and irrigation-induced natural resource concerns on the production area and land treatment area).
- (3) Mitigates, if feasible, any excessive air emissions and/or negative impacts to air quality resource concerns that may result from practices identified in the CNMP or from existing on-farm areas/activities.
- (4) Complies with Federal, State, Tribal, and local laws, regulations, and permit requirements; and
- (5) Satisfies the owner/operator's production objectives.
- B. The Producer Activity Document (PAD) is an abbreviated CNMP document for the producer's use that summarizes the day-to-day activities needed to implement the CNMP. The PAD provides a place for the producer to maintain records as part of a recordkeeping system. A template for a PAD is available in the MMP software.

Subpart B - Policy

405.10 Comprehensive Nutrient Management Plans

A. USDA's goal is for AFO/CAFO owners and operators to take voluntary actions to minimize potential water pollutants from storage facilities, confinement areas, and land application areas. The CNMP is also developed to assist an AFO owner/operator in meeting all applicable local, Tribal, State, and Federal water quality goals or regulations. In addition, this plan shall not result in excessive air emissions and/or negative impacts to air quality resource concerns if it is feasible to mitigate these effects.

B. A CNMP shall be prepared when NRCS or NRCS-designated agents are providing technical or financial assistance to an AFO or CAFO to address manure or wastewater handling and storage/treatment and/or when providing technical or financial assistance for nutrient management that involves the application of manure and wastewater. Once developed, the CNMP shall be signed by the producer before the installation of any waste storage/handling facilities and nutrient management activities identified in the CNMP are initiated.

C. Some data necessary to develop a CNMP will come from chemical analyses of soils, plant tissue, manure, water, and feed. Soil test analyses shall be performed by laboratories successfully meeting the requirements and performance standards of the North American Proficiency Testing Program (NAPT) Proficiency Assessment Program (PAP) <http://www.naptprogram.org/pap/> under the auspices of the Soil Science Society of America or a State-recognized program that considers laboratory performance and proficiency to assure accuracy of test results.

D. Manure analyses shall be performed by laboratories successfully meeting the requirements and performance standards of the Manure Testing Laboratory Certification Program (MTLCP) <http://www.mda.state.mn.us/licensing/pestfert/manurelabs.htm> under the auspices of the Minnesota Department of Agriculture or a State-recognized program that considers laboratory performance and proficiency to assure accuracy of test results. States are encouraged to adopt the MTLCP or State Conservationists can establish State proficiency criteria that meet or exceed the MTLCP program criteria.

E. A CNMP may be developed using custom fertilizer recommendations. Planners shall follow guidance found in the Nutrient Management conservation practice (code 590) and document the rationale for using custom recommendations in the CNMP.

F. The CNMP shall be developed in accordance with all applicable local, Tribal, State, and Federal water quality goals or regulations. The CNMP shall require evaluation and documentation of compliance with the National Environmental Policy Act, the Endangered Species Act, the National Historic Preservation Act, and other effects on the environment. Information on evaluation and documentation is found in the NRCS National Environmental Compliance Handbook and NRCS National Cultural Resources Procedures Handbook. The NRCS National Environmental Compliance Handbook is available at http://directives.sc.gov.usda.gov/media/pdf/H_190_610.pdf.

The NRCS National Cultural Resources Procedures Handbook is available at http://directives.sc.gov.usda.gov/media/pdf/H_190_601_a.pdf. Use the key words "evaluation" or "documentation" to search for information.

G. A PAD shall be prepared to assist with the producer's understanding and management of the CNMP. This document shall be readily available to the producer. The minimum criteria for the PAD are provided in Section III of the FOTG for Comprehensive Nutrient Management Plans under Section 3.2. Portions of the PAD national template not applicable to a specific CNMP will not need to be addressed.

405.11 Minimum Technical Requirements Essential for Providing CNMP Technical Assistance

A. Applies to NRCS and conservation partners, NRCS agents, and/or Technical Service Providers (TSP). A CNMP that is developed by NRCS, conservation partner, or TSP will have the CNMP approved by an NRCS-approved CNMP Planner, as defined in GM-180, Parts 409 and 411. Per GM-180, the NRCS-approved CNMP Planner will assure that an appropriate planning process has been followed in the development of the CNMP and that all needed elements have been prepared by an appropriate NRCS Certified Conservation Planner and/or appropriate specialist(s). State Conservationists will establish the general requirements that must be included in a State-certification program for CNMP Planners.

B. Relevant to the NRCS and conservation partners. Refer to GM-180, Part 409, Subpart B, Policy, Section 409.10 for the general requirements for CNMP planning. The FOTG Section III contains the

C. TSPs play an important role in the development of CNMPs. NRCS has developed criteria and qualifications needed to become a TSP. The criteria and qualifications needed to become a TSP are specified on the TechReg Web site at <http://techreg.usda.gov/>. The State Conservationist may also certify TSPs as NRCS Certified Conservation Planners. Prior to requesting certification, the TSP must meet minimum national and State training and proficiency requirements for the desired certification level. In addition, NRCS certification of TSPs will be contingent upon:

- (1) The State Conservationist identifying a critical need for TSP planning assistance in the State.
- (2) The availability of NRCS staff to provide technical oversight, evaluation, and review of the TSP during the certification process.

D. TSPs who are NRCS-approved CNMP Planners and/or Certified Conservation Planners are listed on the TechReg Web site.

E. Relevant to NRCS and conservation partners. In addition to the general requirements, the State Conservationist will establish certification requirements specific to elements of a CNMP. As a part of the certification process, the State Conservationist will determine how competency will be demonstrated or measured for the following elements:

(1) Manure and Wastewater Handling and Storage. This element addresses the planning of the components and activities associated with the production facility, feedlot, manure and wastewater storage and treatment structures, and any areas or mechanisms used to facilitate transfer of manure and wastewater. The following are required:

- (i) Skill to adequately inventory and evaluate the production site to identify resource concerns in the production area.
- (ii) Ability to plan the conservation treatment alternatives to treat the resource concerns identified in the inventory and evaluation.
- (iii) Ability to recognize needed expertise to identify appropriate conservation measures and treatments.
- (iv) Ability to apply the information contained in the [NRCS Agricultural Waste Management Systems Level 2 Course](#), or equivalent in a field setting.
- (v) Knowledge of the concepts and principles contained in the NRCS Air Quality, Climate Change, and Energy Course and the NRCS Air Quality Resource Concerns Course, or equivalents.

(2) CNMPs that include these components will be prepared and signed by a certified conservation planner in accordance with NRCS policy as described in GM-180, Parts 409 and 411.

(3) Structural practices included in CNMPs will be planned, designed, and approved by NRCS and/or partnership employees with an appropriate level of NRCS engineering job approval authority. Structural practices planned by TSPs will be designed and approved by a professional engineer licensed in the State where the CNMP is located.

(4) Land Treatment. This element addresses the land on which manure and wastewater from an AFO will be applied. The following are required:

- (i) Knowledge to identify natural resource concerns.
- (ii) Ability to plan conservation systems according to the NRCS conservation planning process.
- (iii) Skill in applying water and/or wind erosion prediction tools, as appropriate.
- (iv) Skill in using applicable site-specific nitrogen and phosphorus risk assessment tools.
- (v) Knowledge adequate to design and implement conservation practices common to the geographic area.
- (vi) Knowledge and skill to use the Customer Service Toolkit (CST).
- (vii) Knowledge of the concepts and principles contained in the NRCS Air Quality, Climate Change, and Energy Course and the NRCS Air Quality Resource Concerns Course, or equivalents.

(5) Nutrient Management

(i) This element addresses the requirements for planning land application of all nutrient sources. The following are required:

Ability to apply the concepts and principles contained in the NRCS Introduction to Water Quality Course, or equivalent.

Skill in using erosion and risk assessment tools commonly employed in planning and risk assessment activities (phosphorus risk assessment, nitrogen risk assessment, or Revised Universal Soil Loss Equation (RUSLE2).

Skill in using planning and decision support tools commonly employed in planning manure management systems (MMP, nutrient application planning, and using appropriate setbacks).

Ability to apply the concepts and principles contained in the [NRCS Nutrient and Pest Management Considerations in Conservation Planning Course](#), as it pertains to nutrient management, or equivalent.

Ability to plan in accordance with the NRCS Nutrient Management conservation practice (code 590) criteria.

Certification in nutrient management planning, if established and required by the

State Conservationist to meet State requirements.

The nutrient management planning component of the CNMP will be prepared and signed by an individual who holds State Conservationist-approved certification for nutrient management in the State where the CNMP is located.

F. Applies to NRCS and conservation partners, NRCS agents, and/or TSPs. To maintain CNMP certifications refer to GM-180.

G. Relevant to NRCS and conservation partners, NRCS agents, and/or TSPs. The State Conservationist will include in the State Quality Assurance Plan the actions to develop and maintain a CNMP certification program.

H. The certified conservation planner will ensure that Feed Management and Other Utilization Options elements, when included, are developed by appropriate specialists as determined by the State Conservationist. When the Feed Management conservation practice (code 592) is included in the CNMP, diets and feed management strategies shall be developed by professional animal scientists, independent professional nutritionists, or other comparably qualified individuals. When required by State policy or regulation, animal nutritionists shall be certified through any certification program recognized within the State.

I. If it is determined that excessive negative impacts to air quality resource concerns arise from existing or planned land treatment and/or production area activities identified in the CNMP, then air quality impact mitigation is required in the CNMP. The certified conservation planner will ensure that air quality resource concerns are developed by appropriate specialists as determined by the State Conservationist.

J. A CNMP shall be signed by the producer, certified conservation planner, appropriate CNMP planning specialist(s), and other specialists, as required. The certified conservation planner signs the CNMP to ensure technical adequacy and that all included elements are technically compatible, reasonable, and can be implemented. The certified conservation planner must possess the knowledge, skills, and abilities to manage the development and coordination of all CNMP elements. The State Conservationist will ensure that the certified conservation planner obtains and maintains the needed training/certification(s) to ensure technical adequacy and compatibility of the CNMP.

405.12 Agency-Supported CNMP Software

A. Planners are strongly encouraged to take advantage of the following software that is designed to streamline the CNMP development process, and improve the quality of CNMP output products.

B. MMP

(1) MMP is the only NRCS nationally supported software used to develop a CNMP and PAD. MMP is used to automate the CNMP development process. States can add additional items to the formatted template sections to meet local and State requirements.

(2) CNMP and PAD templates provided by the MMP software meet the criteria specified in Section III of the FOTG. States may adjust their CNMP templates to accommodate the additional requirements for State and local regulations. The national PAD template provides the basic format and content for an abbreviated CNMP document that summarizes the day-to-day activities the producer needs to perform to successfully implement the CNMP.

C. GeoSpatial Nutrient Management

(1) The GeoSpatial Nutrient Management Tool (GNT) is a key component of the automated CNMP development package, and makes possible the importation of CST plans. GNT can also be used as a geographic information system (GIS) "front-end" for MMP to lay out an operation's fields and setback areas spatially to automatically determine the following for each field:

- (i) Total field size.
- (ii) Setback area acres.
- (iii) Spreadable acres (total acres less any setback or other sensitive areas within a field).
- (iv) Soil types.
- (v) Water bodies.
- (vi) Hauling distances.

(2) Connectivity between GNT and MMP expands the number of map output options for inclusion in the CNMP document. Connectivity with CST allows older plans to be modified and used to generate a CNMP.

D. A CNMP may be developed by other means (alternative State-approved software), as long as Section III FOTG CNMP Technical Criteria requirements are followed and CNMP document format requirements are adhered to per Section III FOTG CNMP Technical Criteria.

405.13 Technical Service Providers

A. TSPs shall follow CNMP policies as set forth in GM-190 Part 405 CNMPs

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- B. TSPs shall follow State-established certification criteria and qualification requirements as posted on the NRCS TechReg Web site: <http://techreg.usda.gov/>.
 - C. MMP or alternative State-approved software and associated tools used in the development of CNMP output products shall be made available to TSPs.
 - D. TSPs are encouraged to work with USDA Field Service Center staff throughout the comprehensive nutrient management planning process and in the development, review, and delivery of CNMP output products.

Subpart C - Responsibilities

405.20 NRCS National Headquarters

A. The Deputy Chief for Science and Technology (S&T), under the direction of the Chief, shall provide leadership for continued implementation of technologies and processes that support CNMPs. GM-130, Part 400, Subpart B, Delegations of Authority, Section 400.13, assigns functional responsibilities for CNMPs to the Animal Husbandry and Clean Water Division (AHCWD). The below listed S&T organizational units have the following roles and responsibilities:

- (1) AHCWD, under the direction of the Deputy Chief for S&T, shall:
 - (i) Provide leadership for CNMP technology development, transfer, and training.
 - (ii) Provide leadership for maintaining and updating CNMP policy and technical documents.
 - (iii) Provide leadership for the coordination and implementation of the CNMP Technical Criteria.
 - (iv) Provide leadership in the coordination and cooperation with the United States Environmental Protection Agency (EPA).
 - (v) Provide leadership for the formulation and maintenance of minimum standards for TSPs associated with CNMPs.
- (2) Ecological Sciences Division (ESD), under the direction of the Deputy Chief for S&T, shall:
 - (i) Provide leadership for the development of the technical standards and other technologies to support the CNMP development and implementation.
 - (ii) Provide assistance with the training needs related to CNMP planning and implementation.
- (3) Director of the Conservation Engineering Division (CED), under the direction of the Deputy Chief for S&T, shall:
 - (i) Provide leadership for the development of the technical standards and other technologies to support the CNMP development and implementation.
 - (ii) Provide assistance with the training needs related to CNMP planning and implementation.
- (4) The Coordinator of the TSP Team, under the direction of the Deputy Chief for S&T, shall:
 - (i) Coordinate the TSP certification criteria with AHCWD, CED, and ESD.
 - (ii) Keep the TechReg certification criteria related to CNMPs current for TSPs.
 - (iii) Provide leadership to encourage the use of TSPs.
- (5) National Technology Support Centers (NTSC), under the direction of the Deputy Chief for S&T, shall:
 - (i) Provide technical assistance to the State Conservationist for the implementation of CNMP policy, CNMP development, and CNMP application.
 - (ii) Utilize the Technology Development Teams to acquire new technologies to address nutrient management concerns and facilitate their transfer to States (Manure Management Team, Soil Quality Team, Water Quality and Quantity Team, Air Quality and Atmospheric Change Team, and the Energy Team).
 - (iii) Facilitate the update of national conservation practice standards as needed to ensure that the latest technology is available to States, USDA Field Service Centers, conservation partners, designated agents, and/or TSPs that develop CNMPs.
- (6) The Director of the Resource Economics and Social Sciences Division, under the direction of the Deputy Chief for S&T, shall assist in the development of any economic analyses assessments related to manure management systems, as needed.

B. Deputy Chief for Programs, under the direction of the Chief, shall provide leadership for incorporation of CNMP policy into NRCS conservation planning policy and procedures.

C. Deputy Chief for Strategic Planning and Accountability, under the direction of the Chief, shall provide leadership for incorporation of CNMPs into the NRCS reporting system and provide oversight and evaluation functions associated with CNMP implementation.

405.21 NRCS Regions

Regional Assistant Chiefs shall work with State Conservationists to ensure consistent implementation of and compliance with CNMP policy on a national basis.

405.22 NRCS State Offices

State Conservationists shall:

- (1) Ensure that NRCS State policies are consistent with national CNMP policy.
- (2) Determines procedures to ensure that CNMPs are implemented according to FOTG standards.

- (3) Utilize available tools and technologies to implement CNMP policy.
- (4) Provide recommendations for improvement of CNMP technology development or implementation to AHCWD and/or Water Quality and Quantity Team (WQQT).
- (5) Ensure adequate acquisition of needed expertise and provide training to achieve quality CNMP planning and implementation.
- (6) Provide State leadership for the coordination and implementation of CNMP policy, criteria, and technical guidance.
- (7) Provide State leadership for the formulation and maintenance of State certification standards for TSPs associated with CNMPs.
- (8) Work with State regulatory agencies to clarify regulatory and technical requirements for AFOs.
- (9) Provide State leadership to coordinate CNMP strategies with regulatory agencies and other conservation partners.
- (10) Provide State leadership for the development and maintenance of the State's CNMP development support structure, including cooperation with State-based regulatory authorities and other appropriate agencies, entities, or individuals, to ensure that the most up-to-date nutrient management planning data is available and being utilized.
- (11) Establish or use a certification program that provides for NRCS-approved CNMP planners and certified CNMP specialists associated with the specific elements of a CNMP. Ensure that all pertinent State certification and licensing requirements are met as a part of any established CNMP certification program. Determine how competency will be demonstrated and measured as part of the certification process. Establish a procedure for revocation of certification, as well as recertification. Maintain a current list of NRCS-approved CNMP planners and certified CNMP specialists who are certified to develop specific elements of CNMPs.
- (12) Determine the type and minimum hours of training necessary to maintain the CNMP certified planning specialist designations. Develop or approve training to meet the training requirements for NRCS-approved CNMP planners and certified CNMP specialists.
- (13) Include CNMP products developed by NRCS-approved CNMP Planners and certified CNMP specialists in the State Quality Assurance Plan.
- (14) Review each NRCS-approved CNMP planner and certified specialist designation at least once every 3 years.

405.23 NRCS Area Offices or Equivalent

Area conservationists and equivalents shall:

- (1) Assist field offices with implementing the CNMP policy and technical criteria.
- (2) Report issues needed to be addressed with CNMP planning, and implement and recommend changes and needed improvements.
- (3) Adhere to State and local regulations and guidelines.

405.24 NRCS Field Offices

District Conservationists and equivalents shall:

- (1) Become knowledgeable of and implement the CNMP policy and technical criteria.
- (2) Report issues needed to be addressed with CNMP planning, and implement and recommend changes and needed improvements.
- (3) Adhere to State and local regulations and guidelines.

Subpart D - CNMP Financial and Technical Assistance

405.30 Financial Assistance Programs

Once developed, the CNMP shall be signed by the producer before the installation of any waste storage/handling facilities and nutrient management activities identified in the CNMP are initiated.

405.31 State Conservationists' Discretion for Special Circumstances

A. There may be rare and specific cases where State Conservationists need to use discretion addressing the following circumstances. In these cases, the completed plan is not a CNMP, but is acceptable for technical and/or financial assistance; and the completed plan is not sufficient documentation for an NPDES permit. Special circumstances include:

B. Small animal operations.

At the discretion of the State Conservationist, an AFO may be eligible for technical and/or financial assistance without the development of a CNMP, if the AFO can document that sufficient preventive measures have been installed to prevent discharge, under wet conditions, of manure runoff from the production and land treatment areas. In lieu of a CNMP, a nutrient management plan for the application of manure and a job sheet would be provided to cover the O&M of the production area. Producers shall meet all of the following guidelines to be considered under this exception; and a nutrient management plan will address the application of manure to land treatment areas:

- (i) The AFO has less than 40 animal unit equivalents and adequate acreage to utilize the manure and wastewater generated, or imported, by the operation in accordance with Federal, State, Tribal, and local regulations.
- (ii) No livestock access to a stream or waters of the State, except for controlled access for watering or stream crossing by means of an adequately designed and constructed crossing.
- (iii) There is more than two times the amount of land/crop acres available to utilize the nitrogen, phosphorus, and potassium, based on the most restrictive nutrient, from the manure on a crop removal basis, and none of these fields have a phosphorus soil test in the high, very high, or excessive rating.
- (iv) The producer agrees to apply animal waste at agronomic rates in accordance with the State's Nutrient Management practice standard (code 590).

C. Quality Criteria for soil erosion.

(1) At the discretion of the State Conservationist, an AFO may be granted an exception to the quality criteria for soil erosion (sheet, rill, wind, and irrigation induced) natural resource concerns if all of the following conditions are met:

- (i) Acceptable conservation practices are planned, installed, and maintained to prevent the transport of manure and wastewater nutrients from production fields to adjacent waterways and/or water bodies, including field buffers. Installed practices must effectively prevent the degradation of water resources and meet Federal, State, Tribal, and local regulations.
 - (ii) For manure and processed wastewater application, a State-approved phosphorus risk assessment (P index, Phosphorus Threshold, or Soil Test Phosphorus) is used to determine the level of conservation needed to minimize the movement (surface or sub-surface) of phosphorus to adjacent waterways and/or water bodies. In all cases, the manure phosphorus application rates are based on Soil Test Phosphorus results. Guidance for developing these acceptable rates is found in the GM-190, Part 402, Nutrient Management, and the National Agronomy Manual, (to be developed).
 - (iii) There are no substantial increases in soil erosion from new cropland added to increase spreadable acreage available for manure/nutrient applications.
- (2) In these cases, the CNMP shall be based on local resource conditions, available conservation system technology, and the standards and guidelines contained in the local FOTG.
- (3) Documentation shall include a description of the system being applied, before and after soil loss calculations, including all factor values used to determine the soil loss; and the conservation practices necessary to meet the minimum system requirements of the FOTG.

405.32 Agency-Producer Interactions with Regard to CNMPs

A. Understanding working relations is very important to maintain the authorized role of NRCS when employees provide technical assistance to producers. As such, NRCS shall provide assistance to and work with producers. Producers interact directly with regulatory/permitting authorities. Producers decide and release farm-specific

B. NRCS employees shall not release farm-specific information to regulatory/permitting authorities. When the CNMP is used for regulatory/permitting purposes (NPDES permit), the producer is responsible for follow-up and O&M of the CNMP, including recordkeeping. NRCS employees or USDA agents will provide guidance to producers to ensure that the producer knows which records they need to keep and how to maintain those records. This will ensure that producers are aware of their responsibilities regarding follow-up for CNMPs.

C. Specific written permission from the landowner and decisionmaker shall be required before the NRCS releases farm-specific information to USDA agents or nonregulatory entities (TSPs).

D. When USDA conservation program funds are used (Environmental Quality Incentives Program) to develop the CNMP, follow-up for implementation and review of O&M is the responsibility of NRCS employees or USDA agents. O&M activities for CNMP conservation practices and recordkeeping are the responsibility of the producer.

APPENDIX B

*Nitrogen, Phosphorus, Potassium, Sulfur and
Magnesium for Bermuda Grass Pastures and
Hay Meadows*

NEWS & VIEWS

A regional newsletter published by the
Potash & Phosphate Institute (PPI) and the
Potash & Phosphate Institute of Canada (PPIC)



Dr. C.S. (Cliff) Snyder,
MidSouth Director
May 1998

Nitrogen, Phosphorus, Potassium, Sulfur and Magnesium for Bermudagrass Pastures and Hay Meadows

HYBRID bermudagrass fields that were once highly productive have gradually declined in many areas. Annual forage yield reductions have been attributed to weed competition, stand loss as a result of diseases or winter-kill, and/or continued use of outdated fertilization and harvest management practices. If managed properly, hybrid bermudagrass pastures and hay meadows can provide excellent long-term production of forage and hay for dairy and beef cattle. To achieve good yields and good quality, the forage producer needs to pay close attention to the plant nutrient requirements, forage maturity, and nutrient removals. **Table 1** shows nutrient uptake at three yield levels of bermudagrass.

Table 1. Total nutrient uptake by hybrid bermudagrass.

Yield, tons/A	N	P ₂ O ₅	K ₂ O	S	Mg
	----- uptake, lb/A -----				
6	258	60	288	30	18
8	368	96	400	44	26
10	460	120	500	55	32

Fertilization for Hay Production

Research conducted at the Hill Farm Experiment Station in Louisiana since 1952 has shown that for every 2.0 tons/A of hay yield goal per cutting, the following nutrients must be provided...from the soil and/or as fertilizer (**Table 2**):

The application of nitrogen (N), phosphorus (P), potassium (K), sulfur (S), and boron (B) should be made in the spring, at or just before greenup, which is about six weeks prior to the first harvest in May. These same nutrients should also be applied, for each additional cutting desired, after removal of the hay from the field. Calcium (Ca) and magnesium (Mg) can be provided through a sound

liming program, based on soil tests, to maintain the soil pH in the preferred range of pH 5.5 to 6.2. If soil tests indicate a need for aglime, good quality calcitic or dolomitic (high-Mg) limestone can be used to provide the necessary Ca and/or Mg. If dolomitic or high-Mg limestone is not used, and soils test below 75 to 100 lb/A in extractable Mg at 0 to 6 inches, and also in the subsurface 6 to 12 inches, Mg can be applied as K-Mg-sulfate (K-Mag, Sul-Po-Mag) at rates of at least 20 to 50 lb of Mg/A. Other Mg sources can be used but are seldom available to most forage producers. Magnesium fertilization should be balanced with soil Mg levels and the forage uptake demand.

Table 2. Nutrient requirements for each 2.0 tons of hay/A per cutting (lb/A).

N	100	B	0.25
P ₂ O ₅	30	Fe	0.25
K ₂ O	100	Mn	0.75
S	25	Cu	0.03
Ca	10	Zn	0.06
Mg	5		

From: 1996 Agronomy Research Report, edited by M. M. Eichhorn, Jr. LSU Ag Center, Hill Farm Research Station.

Iron, manganese (Mn), copper (Cu) and zinc (Zn) are not thought to be limiting in most southern pastures and hay meadows. To avoid potential limitations of these nutrients, producers may choose to make applications each spring.

Ideally, bermudagrass hay should be cut in the flag-leaf stage and no later than early seed head development, to a 2-inch stubble height. This is usually about six weeks after the first fertilization, and about four to five weeks after N, K, and S fertilizers are applied to harvested fields. If forage growth is limited severely because of drought and harvest is not justified...even though the forage may be at peak



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maturity...harvest can be postponed until forage is more abundant. Harvest decisions should be based on both quantity of the forage, and growth stage. Cutting on a strict four, six, or eight-week cycle can result in failure to achieve hay quantity and quality goals. If harvest is delayed too long, however, the ratio of leaves to stems will decrease, protein will decline, and digestibility will be lowered. Harvested hay should be kept under a roof, if possible, to reduce dry matter losses associated with weathering.

Pasture Fertilization

Bermudagrass pastures should receive 100 to 300 lb of N/A, 0 to 100 lb of P₂O₅/A, and 0 to 120 lb of K₂O/A each year. If brood cows are grazed at one to two head/A, 34 to 68 lb of N/A can be applied on April 1, June 1 and August 1. Phosphate and potash can be applied in March according to soil test results. If stocker cattle (2,500 lb of live weight/A) are grazed, N can be applied at 50 lb/A in mid-April and again every 21 to 28 days during the growing season (April to September, depending on geography) based on the grazing intensity and prevailing weather. Phosphate and potash applications for grazing stockers can be made in March and should be based on soil tests.

Stocking rates for beef cows should generally range from one to two head/A. With stockers, begin with three to four head/A. With lactating dairy cows, begin with seven to 10 head/A. Graze to keep the forage in a vegetative stage. If the forage reaches eight to 10 inches tall, consider mowing the pasture back to a two-inch stubble height. Properly fertilized bermudagrass pastures can result in animal gains of 1,000 lb/A, or an average daily gain of 1.5 lb/A/day. A cow-calf pair/A can be provided sufficient forage from mid-April to mid-November with proper fertilization and grazing management in north Louisiana. Dates will vary in other areas, depending on the frost-free growing season.

Soil and plant tissue tests can be useful in determining the need for any of the plant nutrients and to evaluate the success of the nutrient management program. Nutrient sufficiency ranges for Coastal and other high-yielding bermudagrasses are shown in **Table 3**.

Table 3. Conservative nutrient sufficiency ranges in hybrid bermudagrasses for 90 percent of maximum yield.

Sufficiency range, %				
N	P	K	S	Mg
2.2	0.24	1.5 ¹	0.15	0.10

¹ A K range of 1.8 to 2.2 percent is preferred in more northern bermudagrass producing regions. If the last harvest shows a K level below 1.1 percent, substantial stand loss can occur during the winter.

Nutrient Use Efficiency

Global economic competitiveness and a heightened desire for improved environmental stewardship demand that we do everything possible to maximize the efficient use of applied nutrients, regardless of source (fertilizer, manure, etc.). One way to accomplish these goals is to provide balanced plant nutrition. Research with forages and field crops has shown that deficiencies of P and K can result in increases in residual soil ammonium-N (NH₄-N) and nitrate-N (NO₃-N) levels. Research at the Hill Farm Experiment Station showed that 400 lb of N/A/year produced the maximum economic yield of Coastal bermudagrass hay. At this same N rate, the uptake and N-use efficiency were maximized with 400 lb of K₂O/A. Interestingly, a K₂O rate of about 600 lb/A was required to build soil test K levels. Annual applications of at least 400 lb of K₂O/A were required to rejuvenate thinning bermudagrass stands.

Other research in Louisiana showed that with optimal nutrient balance, residual available N levels in the top four feet of soil were very low after bermudagrass (less than 3.2 ppm), regardless of the N application rate, which ranged from 0 to 800 lb/A in the seven-year study. It demonstrated that bermudagrass can be fertilized with near maximum N rates without seriously affecting residual soil NO₃ levels (that may potentially impact water resources), if other nutrients are kept in balance.

In another study on a Darley gravelly fine sandy loam, forage yield, crude protein yield, digestible dry matter yield, and total digestible nutrient yield increased with increasing P application and were maximized at a Bray P-2 soil test Bray P-2 level of 70 ppm at the 0 to 6-inch depth, or 112 ppm at the 0 to 3-inch depth. With 400 lb of N/A, and an annual optimum P₂O₅ rate of 120 to 180 lb/A, each harvest removed 30 lb of P₂O₅/A. In the absence of P fertilization, forage yields were reduced by about 66 percent, potentially resulting in large residual soil N levels.

The results of decades of research indicate that 100-30-120-25-0.5 lb/A of N-P₂O₅-K₂O-S-B for growing each cutting of hay appears optimal for bermudagrass hay on the Hill Farm Experiment Station. An ideal N-P₂O₅-K₂O-S ratio in fertilizers for bermudagrass would be 4-1-4-1 on many Gulf Coastal Plain soils. ■

Correction: In the March 1998 PPI *News & Views* titled "Precision Agriculture Progress in the Midsouth," a number was given incorrectly. The second sentence in column two on front page should have said: "Reports indicate there may be more than 17,000 grain yield monitors in the U.S." The figure was incorrectly shown as 170,000.—*Dr. Cliff Snyder*

APPENDIX C

*National Pollutant Discharge Elimination
System Permit Regulation and Effluent
Limitation Guidelines and Standards for
Concentrated Animal Feedings Operations
(Preamble to CAFO Rule)*

68 Fed. Reg. 7176-01

must comply with the technology and water quality-based limitations in the permit as defined by the permitting authority. Only CAFOs that have successfully demonstrated no potential to discharge may avoid a permit. Each permitted CAFO must also develop and implement a site-specific nutrient management plan. EPA fully expects that a CNMP that is properly developed and implemented, consistent with USDA guidance, will satisfy the nutrient management requirements of this rule.

2. States

The States, including their environmental, agriculture, and conservation agencies, have the key leadership role in implementing programs to ensure that AFOs take the important steps needed to implement sound management practices that protect water quality. State regulatory agencies will play a central role in implementing today's final rule while supporting the voluntary efforts of other State programs and agencies.

3. EPA

EPA's statutory obligation is to establish national regulations that protect and restore the chemical, physical, and biological integrity of the Nation's waters. EPA has undertaken an extensive outreach process to promote understanding of the science, policy, and economic issues surrounding animal agriculture. The Agency will continue to work effectively with the varied interest groups to ensure effective implementation, compliance assistance, and enforcement of these regulations.

4. USDA

USDA is EPA's partner in working collaboratively to ensure that USDA's voluntary programs and EPA's regulatory programs complement each other to support effective nutrient management by AFOs. EPA and USDA will continue to coordinate the development and implementation of tools to support agriculture, in ways that respect the different roles of the two agencies.

5. Other Stakeholders

A host of other entities, such as research and educational institutions, soil and water conservation districts, watershed groups, and many others, can contribute to the use of sound agricultural practices and protection of water quality. The private sector plays an important role in ensuring that CAFOs have the tools and expertise available to protect water quality while enhancing production and remaining profitable. For example, the private

sector in partnership with educational institutions and other stakeholders can explore innovative technologies for the management and utilization of animal manure and provide the needed expertise to support development of sound, site-specific, and technically based nutrient management plans.

6. The Public

The public has had, and continues to demonstrate, a keen interest in many aspects of animal agriculture. This final rule establishes obligations for CAFOs to protect water quality and affirms the public's role and involvement throughout the regulatory program.

E. What Principles Have Guided EPA's Decisions Embodied in This Rule?

EPA has considered the implementation of the existing regulations which are more than 25 years old, changes in the industry, the extensive comments on the proposed rule and supplemental notices of data availability, and countless studies, reports, and data in developing this final rule. At the same time, EPA has tried to embody some important principles throughout the final rule. The Agency strives to ensure its rules are based on sound science and economics, promote emerging technologies, and protect watersheds. In addition, the following principles have guided this rulemaking:

Simplicity and Clarity

EPA has tried to make this final rule as simple and easy to understand as possible. This rule provides a clear understanding of who is covered and what they are expected to do.

Emphasis on Large CAFOs

This rule focuses on the operations that pose the greatest risk to water quality. These operations are predominantly large CAFOs and some smaller CAFOs that pose a high risk to water quality.

Flexibility for States

This rule establishes a strong and consistent national expectation for CAFOs, yet provides flexibility for States to address site-specific situations.

Sound Nutrient Management Planning

This rule embodies the goal of developing site-specific nutrient management plans to ensure that animal manure is used consistent with proper agriculture practices that protect water quality.

F. What Are the Major Elements of This Final Rule? Where Do I Find the Specific Requirements?

This section provides a very brief summary of the major elements of this final rule and a brief index on where each of the requirements is located in the final regulations. The regulations for the NPDES permit program are in Part 122 of Title 40 of the Code of Federal Regulations. These NPDES regulations include requirements that apply to all point sources, including CAFOs. The national effluent limitations guidelines for CAFOs are in Part 412 of Title 40 of the Code of Federal Regulations. This summary is not a replacement for the actual regulations.

1. NPDES Regulations for CAFOs

Overall, this final rule maintains many of the basic features and the overall structure of the 1976 NPDES regulations with some important exceptions. First, all CAFOs have a mandatory duty to apply for an NPDES permit, which removes the ambiguity of whether a facility needs an NPDES permit, even if it discharges only in the event of a large storm. In the event that a Large CAFO has no potential to discharge, today's rule provides a process for the CAFO to make such a demonstration in lieu of obtaining a permit. The second significant change is that large poultry operations are covered, regardless of the type of waste disposal system used or whether the litter is managed in wet or dry form.

Third, under this final rule, all CAFOs covered by an NPDES permit are required to develop and implement a nutrient management plan. The plan would identify practices necessary to implement the ELG and any other requirements in the permit and would include requirements to land apply manure, litter, and process wastewater consistent with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients.

2. Effluent Limitations Guidelines Requirements for CAFOs

a. Existing sources. The final ELGs published today will continue to apply to only Large CAFOs, historically referred to as operations with 1,000 or more animal units, although the requirements for existing sources and new sources are different for certain animal sectors. In the case of existing sources, the ELGs will continue to prohibit the discharge of manure and other process wastewater pollutants, except for allowing the discharge of process wastewater whenever rainfall

ensure appropriate agricultural utilization of nutrients, some runoff of nutrients may occur during rainfall events, but EPA believes that this potential will be minimized and any remaining runoff can reasonably be considered an agricultural storm water discharge.

EPA notes that any dry weather discharge of manure or process wastewater resulting from its application to land area under the control of a CAFO would not be considered an agricultural storm water discharge and would thus be subject to Clean Water Act requirements. As a matter of common sense, only storm water can be agricultural storm water. Further, if manure or process wastewater were applied so thickly that it ran off into surface waters even during dry weather, this would not be consistent with practices designed to ensure appropriate agricultural utilization of nutrients.

In this rule, EPA is clarifying how it believes the scope of regulated point source discharges from a CAFO is limited by the agricultural storm water exemption. EPA does not intend its discussion of how the scope of point source discharges from a CAFO is limited by the agricultural storm water exemption to apply to discharges that do not occur as the result of land application of manure, litter, or process wastewater by a CAFO to land areas under its control and are thus not at least potentially CAFO point source discharges. In explaining how the scope of CAFO point source discharges is limited by the agricultural storm water exemption, EPA intends that this limitation will provide a "floor" for CAFOs that will ensure that, where a CAFO is land applying manure, litter, or process wastewater in accordance with site specific practices designed to ensure appropriate agricultural utilization of nutrients, no further effluent limitations will be authorized, for example, to ensure compliance with water quality standards. Any remaining discharge of manure or process wastewaters would be covered by the agricultural storm water exemption and would be considered nonpoint source runoff. Further, the Agency does not intend that the limitation on the scope of CAFO point source discharges provided by the agricultural storm water exemption be in any way constrained, so long as manure, litter, or process wastewater is land applied by the CAFO in accordance with site specific nutrient management practices that ensure appropriate utilization of nutrients. In particular, EPA does not intend that the applicability of the agricultural storm

water exemption to discharges from land application areas of a CAFO be constrained by requirements to control runoff resulting from the application of pesticides or other agricultural practices.

Although as noted above, manure and process wastewater discharges from the land application area are not directly subject to water quality-based effluent limits, EPA encourages States to address water quality protection issues in their technical standards for determining appropriate land application practices.

The Agency disagrees with the commenters who would interpret the agricultural storm water provision to exclude all of the runoff from a CAFO's land application areas. It would not be reasonable to believe that Congress intended to exclude as an "agricultural" storm water discharge any and all discharges of CAFO manure from land application areas, for example, no matter how excessively such manure may have been applied without regard to true agricultural needs. Similarly, EPA does not agree with the commenters who believe that the agricultural storm water discharge exclusion does not apply at all to CAFOs because Congress singled out CAFOs by specifically including them in the definition of point source. There is nothing in the text of the point source definition (CWA section 502(14)) that indicates that Congress intended the agricultural storm water discharge exclusion not to apply to CAFOs.

After considering all the comments, EPA has decided that it is not necessary to include a definition of the term "agricultural storm water" in the rule text at section 122.23(b). EPA believes that the amended regulatory text at 40 CFR 122.23(e), in combination with this preamble discussion, adequately clarifies the distinction between regulated point source discharges and non-regulated agricultural storm water discharges from the land application area of a CAFO.

Under the final rule, as proposed, discharges from the production area at the CAFO (e.g., the feedlot and lagoons) are not eligible for the agricultural storm water exemption at all, because they involve the type of industrial activity that originally led Congress to single out CAFOs as point sources.

Today's final rule also requires all permits for CAFOs to include terms and conditions to address land application. See section 122.42(e) and Part 412. The Agency has included this requirement because it has the authority to regulate point source discharges and any discharge of CAFO manure, litter, or process wastewaters from the land

application area of a CAFO which is not agricultural storm water is subject to the Clean Water Act. EPA believes that the only way to ensure that non-permitted point source discharges of manure, litter or process wastewaters from CAFOs do not occur is to require that CAFOs apply for NPDES permits that will establish requirements that ensure that manure, litter, and process wastewater are only applied to CAFO land application areas in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.

7. When and How Is an AFO Designated as a CAFO?

In today's final rule, EPA is retaining the requirement for an on-site inspection and a determination that an AFO is a significant contributor of pollutants to waters of the United States prior to designating an AFO as a CAFO. A small AFO may be designated only if it discharges either: (1) Into waters of the United States through a man-made ditch, flushing system, or other similar man-made device or (2) directly into waters of the United States that originate outside of the facility and pass over, across, or through the facility or otherwise come into contact with the confined animals. Medium operations may also be designated as CAFOs even if they do not meet either of the two conditions for being defined as a CAFO.

What did EPA propose? In the proposed rule, EPA presented two options with respect to the designation criteria. EPA proposed to retain the existing criteria under a three-tier structure and proposed to eliminate them under a two-tier structure. In addition, EPA requested comment on several additional alternatives that would have retained the criteria only for small operations.

EPA also proposed to modify the on-site inspection requirement to explicitly include other forms of information gathering such as use of monitoring data, fly-overs, and satellite imagery. EPA also proposed a technical correction, changing the term "significant contributor of *pollution*" to "significant contributor of *pollutants*."

What were the key comments? EPA received limited comment concerning proposed changes to the designation criteria. Only a few States specifically supported the elimination of the criteria. A few representatives of the livestock industry generally supported elimination of the criteria for operations of all sizes. Commenters were generally opposed to EPA's proposal to modify the on-site inspection requirement to

manure off-site. EPA's goal is to track the majority of the manure that is transferred to third parties. This information kept by the large operations is sufficient for EPA needs.

EPA decided not to include a small quantity exemption for off-site transfer of manure in the final rule. The reason for the proposed exemption was to provide record keeping relief to small operators. However, EPA determined that effective implementation of the small-quantity exemption would itself have required considerable recordkeeping by the operator. Practically, then, including this exemption would not have significantly reduced the record keeping burden to small operators.

The annual report, which includes seven elements that are readily available to the CAFO owner/operator in the nutrient management plan, is being required in today's rule rather than the proposed PNP written notification, cover sheet and executive summary. The annual report gives the permitting authority information on the number of overflows occurring in a year (in order to verify compliance with the production area design requirements), the amount of manure generated, the amount of manure transferred off-site, and the number of acres available for land application. The annual report also provides information, such as the degree to which CAFOs are expanding and accounting for increased manure production, which is important to evaluate changes that might be needed to comply with permitting requirements. The final rule requires the permittee to indicate whether its plan was either written or reviewed by a certified CNMP planner. EPA is not requiring that a certified planner be used to develop or review the plan required under this rule. However, EPA believes that certified planners provide a valuable service in plan development such as consistency and improved plan quality. Knowledge of which plans were developed by a certified planner will help EPA focus its compliance assistance efforts and help States determine level of permit review needed for each facility. EPA has concluded that the annual report is a more effective method for ensuring permitting authorities and EPA have basic information documenting CAFO performance relative to permit requirements.

EPA disagrees with the public comments suggesting that the monitoring and reporting requirements do not provide any benefit to water quality. Monitoring and reporting provide the basis for CAFO operators

and permitting authorities to evaluate compliance with the requirements of today's rule and the associated environmental implications. Monitoring provides valuable benchmark information and subsequent data that a permittee can use to adjust its activities, better comply with the requirements of the permit, and thereby better control its runoff or potential runoff. Monitoring also provides documentation of the operation's activities, which is essential to determine whether regulatory requirements are being implemented effectively and the success of those activities in protecting water quality. Monitoring allows the permittee and the permitting authority to know what, if any, contribution the permittee is making to the degradation of water quality. Such information is also helpful in determining the improvements in water quality as a result of permit compliance activities.

In this final rule, EPA has made great efforts to reduce burden beyond what is noted above. EPA has eliminated all certifications that were proposed, which include middle category certification that a facility is not a CAFO, certification of off-site manure recipients, and the use of certified CNMP planners. In addition, EPA is not including a national requirement for operators to document that there is no direct hydrological connection from groundwater beneath their production area to surface waters (or add controls where there is such a connection).

V. States' Roles and Responsibilities

A. What Are the Key Roles of the States?

State regulatory agencies with authorized NPDES programs are principally responsible for implementing and enforcing today's rule. This final rule obligates NPDES permit authorities to revise their NPDES programs expeditiously and to issue new or revised NPDES permits to include the revised effluent guidelines and other permit requirements adopted today. In authorized States, their role would also include determinations for no potential to discharge (see section IV.B.2 of this preamble) and CAFO designation (see section IV.A.7 of this preamble) of AFOs as CAFOs.

Various State organizations, such as environmental agencies, agricultural agencies, conservation districts, play a central role in implementing voluntary and other programs (e.g., technical assistance, funding, public involvement, legal access to information, and setting protocols) that support the goal of protecting water quality through proper management of animal manure. EPA

fully expects and promotes effective cooperation between voluntary and regulatory programs to achieve this goal. In designing this final rule, EPA has placed the principal emphasis on Large CAFOs which are part of the base NPDES program. With this in mind, EPA is promoting and encouraging States to use the full range of voluntary and regulatory tools to address medium and small operations.

B. Who Will Implement These New Regulations?

The requirements of today's rule will be implemented by issuing NPDES permits. Today's rule will be implemented by States with authorized NPDES permit programs for CAFOs. As of the date of this final rule, there are 45 States and 1 Territory with authorized NPDES permit programs for CAFOs. In States without an authorized NPDES program for CAFOs and in Indian Country, EPA will implement the rule.

C. When and How Must a State Revise Its NPDES Permit Program?

NPDES regulations require State NPDES permitting programs to be revised to reflect today's changes within one year of the date of promulgation of final changes to the Federal CAFO regulations (see 40 CFR 123.62(e)). In cases where a State must amend or enact a statute to conform with the revised CAFO requirements, such revisions must take place within two years of promulgation of today's regulations. States that do not have an existing authorized NPDES permitting program but who seek NPDES authorization after these CAFO regulatory provisions are promulgated must have authorities that meet or exceed the revised federal CAFO regulations at the time authorization is requested.

Today's regulation requires States to have technical standards for nutrient management consistent with 40 CFR 412.4(c)(3). If the State already has nutrient management standards in place, it is sufficient to provide those to EPA along with the State's submission of regulatory revisions to conform to today's changes. If the State has not already established technical standards for nutrient management, the Director shall establish such standards by the date specified in § 123.62(e) and provide those to EPA along with the State's submission of regulatory revisions.

The NPDES program modification process is described at 40 CFR 123.62. Opportunities for public input into the process of review and approval of State program revisions and approvals is

described in section V.C of this preamble.

D. When Must States Issue New CAFO NPDES Permits?

EPA does not typically establish requirements for when States must develop and issue NPDES permits. However, today's regulations require CAFOs to seek NPDES permit coverage under general permits within certain time frames, and CAFOs may not discharge any pollutants to waters of the United States without a permit. Thus, it is in States' interests to issue new or revised NPDES permits in a timely manner. It is EPA's expectation that new general permits will be available no later than the date on which CAFOs have a duty to apply for an NPDES permit. See section IV.B.3 for a full description of when CAFOs must seek permit coverage.

E. What Types of NPDES Permits Are Appropriate for CAFOs?

The NPDES regulations provide the permitting authority with the discretion to determine the most appropriate type of permit for a CAFO. The two basic types of NPDES permits are individual and general permits. An individual permit is a permit specifically tailored for a specific facility, while a general permit is developed and issued by a permitting authority to cover multiple facilities with similar characteristics.

EPA recognizes that most CAFOs will likely be covered by NPDES general permits; however, there are some circumstances where an individual permit might be appropriate (e.g., exceptionally large facilities, facilities that have a history of noncompliance, or facilities applying for approval to use an alternative performance standard in lieu of baseline technology-based effluent guidelines). The decision whether to issue a general or individual permit lies with the NPDES permitting authority. Section VI of the preamble discusses opportunity for public involvement in the NPDES permitting process.

As permit authorities explore innovative permitting approaches, the use of "watershed-based NPDES permits" might become more prevalent. For example, a watershed-based permit could be issued to CAFOs within a specific watershed. EPA is currently promoting pilot projects to help evaluate the benefits of watershed-based permitting and encourages States to use such a flexible tool to address the varied needs of specific watersheds.

F. What Flexibility Exists for States To Use Other Programs To Support the Achievement of the Goals of This Regulation?

In designing this final rule, EPA has striven to maximize the flexibility for States to implement appropriate and effective programs to protect water quality and public health by ensuring proper management of manure and related wastewater. This rule establishes binding legal requirements for Large CAFOs and maintains substantial flexibility for States to set other site-specific requirements for CAFOs as needed to achieve State program objectives. EPA encourages States to maximize use of voluntary and other non-NPDES programs to support efforts by medium and small operations to implement appropriate measures and correct problems that might otherwise cause them to be defined or designated as a CAFO. EPA encourages States to use the flexibility available under the rule so that their State non-NPDES programs complement the required regulatory program. The following examples can illustrate opportunities for this State flexibility:

- States are encouraged to work with State agriculture agencies, conservation districts, USDA and other stakeholders to create proactive programs to fix the problems of small and medium operations in advance of compelling the facilities to apply for NPDES permits.
- Where a small or medium facility has been covered by an NPDES permit, the permitting authority may allow the facility to exit the permit program at the end of the 5-year permit term if the problems that caused the facility to be defined or designated as a CAFO have been corrected to the satisfaction of the permitting authority.
- A small or medium AFO might be taking early voluntary action in good faith to develop and implement a comprehensive nutrient management plan, yet might have an unexpected situation that could be the basis for the facility's being defined or designated as a CAFO. EPA encourages the permitting authority to provide an opportunity to address the cause of the discharge before defining or designating the operation a CAFO.

These examples are intended to illustrate the flexibility that EPA is promoting with regard to medium and small operations. They are not applicable to Large CAFOs.

What did EPA propose? EPA's proposed rule included an option to expand substantially the criteria for when medium and small AFOs could be defined or designated as CAFOs. The

effect of these proposed changes to the structure and definition of a CAFO was to require a substantially larger number of medium and small operations to be brought into the NPDES regulatory program. EPA estimated that as many as 30,000 medium and small AFOs could be brought into the regulatory program under this option. Another option presented in the proposal was to structure the permitting requirements to build in inherent flexibility for the medium facilities. In addition, the proposal and the subsequent 2001 Notice introduced a variety of more specific options for State flexibility, including one under which a State with an effective non-NPDES program could request to operate under a simplified permitting structure.

What were the key comments? The proposed expansion of the NPDES program for medium and small operations caused great concern, particularly among the States. Many comments from both States and facility operators centered on the desire that EPA recognize the effectiveness of existing State CAFO programs. More specifically, many States wanted EPA to allow effective State non-NPDES programs to operate in lieu of a State-run NPDES program, particularly in the event that EPA in the final rule expanded the criteria for defining medium facilities as CAFOs.

In general, comments from environmental groups expressed opposition to most types of flexibility because of concerns regarding potential loss of accountability at facilities and reduced public participation. Industry commenters generally supported State flexibility as necessary to address factors such as soil, climate, and site and regional characteristics that vary within and among States. Commenters maintained that State flexibility promotes those program elements States have found to be most effective and allows States and industry to achieve workable solutions to water quality issues. States also supported maintaining a high degree of flexibility both to accommodate State-specific characteristics and priorities and to preserve their investment in existing good quality programs. Some State and industry commenters asserted that EPA's options for flexibility were too limited.

Rationale. EPA recognizes that EPA's proposed expansion of the criteria for when medium and small AFOs would be defined or designated as CAFOs would have had the effect of eliminating the flexibility for States to use voluntary and other programs. EPA is also aware that many of the States authorized to

APPENDIX D

*United States Department of Agriculture
Natural Resource Conservation Service
Conservation Practice Standard
Code 512*

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

Text

FORAGE AND BIOMASS PLANTING

(Ac.)

CODE 512

DEFINITION

Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay, or biomass production.

PURPOSE

- Improve or maintain livestock nutrition and/or health.
- Provide or increase forage supply during periods of low forage production.
- Reduce soil erosion.
- Improve soil and water quality.
- Produce feedstock for biofuel or energy production

CONDITIONS WHERE PRACTICE APPLIES

This practice applies all lands suitable to the establishment of annual, biennial or perennial species for forage or biomass production. This practice does not apply to the establishment of annually planted and harvested food, fiber, or oilseed crops.

CRITERIA**General Criteria Applicable to All Purposes**

Select plant species and their cultivars based on:

- Climatic conditions, such as annual precipitation and its distribution, growing season length, temperature extremes and the USDA Plant Hardiness Zone.

- Soil condition and landscape position attributes such as; pH, available water holding capacity, aspect, slope, drainage class, fertility level, salinity, depth, flooding and ponding, and levels of phytotoxic elements that may be present.
- Resistance to disease and insects common to the site or location.

Follow recommendations for planting rates, methods and dates obtained from the plant materials program, land grant and research institutions, extension agencies, or agency field trials.

Seeding rates will be calculated on a pure live seed (PLS) basis.

Plant at a depth appropriate for the seed size or plant material, while assuring uniform contact with soil.

Prepare the site to provide a medium that does not restrict plant emergence.

Plant when soil moisture is adequate for germination and establishment.

All seed and planting materials will meet state quality standards.

Do not plant federal, state, or local noxious species.

Apply all plant nutrients and/or soil amendments for establishment purposes according to a current soil test. Application rates, methods and dates are obtained from the plant materials program, land grant and research institutions, extension agencies, or agency field trials.

When planting legumes, use pre-inoculated seed or inoculate with the proper viable strain of Rhizobia immediately before planting.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [Field Office Technical Guide](#).

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January 2010**

Exclude livestock until the plants are well established.

Select forage species based on the intended use, level of management, realistic yield estimates, maturity stage, and compatibility with other species. Verify plant adaptation to the area prior to planting.

Additional Criteria for Improving or Maintaining Livestock Nutrition and/or Health

Use forage species that will meet the desired level of nutrition (quantity and quality) for the kind and class of the livestock to be fed.

Forage species planted as mixtures will exhibit similar palatability to avoid selective grazing.

Additional Criteria for Providing or Increasing Forage Supply During Periods of Low Forage Production

Select plants that will help meet livestock forage demand during times that normal farm/ranch forage production are not adequate.

Additional Criteria for Reducing Erosion and Improving Water Quality.

Ground cover and root mass need to be sufficient to protect the soil from wind and water erosion.

Additional Criteria for Producing Feedstocks for Biofuel or Energy Production

Select plants that provide adequate kinds and amount of plant materials needed.

CONSIDERATIONS

In areas where animals congregate consider establishing persistent species that can tolerate close grazing and trampling.

Where wildlife and pollinator concerns exist, consider plant selection by using an approved habitat evaluation procedure.

Where air quality concerns exist consider using site preparation and planting techniques that will minimize airborne particulate matter generation and transport.

Where carbon sequestration is a goal, select deep-rooted perennial species that will increase underground carbon storage.

During and upon stand establishment planning and application of the following conservation practices should be considered as applicable; Forage and Biomass Harvest (511), Herbaceous Weed Control (315), Nutrient Management (590), and Prescribed Grazing (528).

PLANS AND SPECIFICATIONS

Prepare plans and specifications for the establishment planting for each site or management unit according to the Criteria, Considerations, and Operations and Maintenance described in this standard. Record them on a site specific job sheet or in the narrative of a conservation plan.

The following elements will be addressed in the plan to meet the intended purpose:

- Site Preparation
- Fertilizer Application (if applicable)
- Seedbed/Planting Bed Preparation
- Methods of Seeding/Planting
- Time of Seeding/Planting
- Selection of Species
- Type of legume inoculant used (if applicable)
- Seed/Plant Source
- Seed Analysis
- Rates of Seeding/Planting
- Supplemental Water for Plant Establishment (if applicable)
- Protection of Plantings (if applicable)

OPERATION AND MAINTENANCE

Inspect and calibrate equipment prior to use. Continually monitor during planting to insure proper rate, distribution and depth of planting material is maintained.

Monitor new plantings for water stress. Depending on the severity of drought, water stress may require reducing weeds, early

harvest of any companion crops, irrigating when possible, or replanting failed stands.

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APPENDIX E

*United States Department of Agriculture
Natural Resource Conservation Service
Conservation Practice Standard
Code 590*

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

NUTRIENT MANAGEMENT

(Ac.)

CODE 590

DEFINITION

Managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments.

PURPOSE

- To budget, supply, and conserve nutrients for plant production.
- To minimize agricultural nonpoint source pollution of surface and groundwater resources.
- To properly utilize manure or organic by-products as a plant nutrient source.
- To protect air quality by reducing odors, nitrogen emissions (ammonia, oxides of nitrogen), and the formation of atmospheric particulates.
- To maintain or improve the physical, chemical, and biological condition of soil.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all lands where plant nutrients and soil amendments are applied. This standard does not apply to one-time nutrient applications to establish perennial crops.

CRITERIA

General Criteria Applicable to All Purposes

A nutrient budget for nitrogen, phosphorus, and potassium must be developed that considers all potential sources of nutrients including, but not limited to, green manures, legumes, crop residues, compost, animal manure, organic by-products, biosolids, waste water, organic matter,

soil biological activity, commercial fertilizer, and irrigation water.

Enhanced efficiency fertilizers, used in the State must be defined by the Association of American Plant Food Control Officials (AAPFCO) and be accepted for use by the State fertilizer control official, or similar authority, with responsibility for verification of product guarantees, ingredients (by AAPFCO definition) and label claims.

For nutrient risk assessment policy and procedures see Title 190, General Manual (GM), Part 402, Nutrient Management, and Title 190, National Instruction (NI), Part 302, Nutrient Management Policy Implementation.

To avoid salt damage, the rate and placement of applied nitrogen and potassium in starter fertilizer must be consistent with land-grant university guidelines, or industry practice recognized by the land-grant university.

The NRCS-approved nutrient risk assessment for nitrogen must be completed on all sites unless the State NRCS, with the concurrence of State water quality control authorities, has determined specific conditions where nitrogen leaching is not a risk to water quality, including drinking water.

The NRCS-approved nutrient risk assessment for phosphorus must be completed when:

- phosphorus application rate exceeds land-grant university fertility rate guidelines for the planned crop(s), or
- the planned area is within a phosphorus-impaired watershed (contributes to 303d-listed water bodies), or
- the NRCS and State water quality control authority have not determined specific conditions where the risk of

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phosphorus loss is low.

A phosphorus risk assessment will not be required when the State NRCS, with concurrence of the State water quality control authority, has determined specific conditions where the risk of phosphorus loss is low. These fields must have a documented agronomic need for phosphorus; based on soil test phosphorus (STP) and land-grant university nutrient recommendations.

On organic operations, the nutrient sources and management must be consistent with the USDA's National Organic Program.

Areas contained within minimum application setbacks (e.g., sinkholes, wellheads, gullies, ditches, or surface inlets) must receive nutrients consistent with the setback restrictions.

Applications of irrigation water must minimize the risk of nutrient loss to surface and groundwater.

Soil pH must be maintained in a range that enhances an adequate level for crop nutrient availability and utilization. Refer to State land-grant university documentation for guidance.

Soil, Manure, and Tissue Sampling and Laboratory Analyses (Testing).

Nutrient planning must be based on current soil, manure, and (where used as supplemental information) tissue test results developed in accordance with land-grant university guidance, or industry practice, if recognized by the university.

Current soil tests are those that are no older than 3 years, but may be taken on an interval recommended by the land-grant university or as required by State code. The area represented by a soil test must be that acreage recommended by the land-grant university.

Where a conservation management unit (CMU) is used as the basis for a sampling unit, all acreage in the CMU must have similar soil type, cropping history, and management practice treatment.

The soil and tissue tests must include analyses pertinent to monitoring or amending the annual nutrient budget, e.g., pH, electrical conductivity (EC) and sodicity where salts are a concern, soil organic matter, phosphorus, potassium, or other nutrients and test for nitrogen where applicable. Follow land-grant university guidelines regarding required analyses.

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Soil test analyses must be performed by laboratories successfully meeting the requirements and performance standards of the North American Proficiency Testing Program-Performance Assessment Program (NAPT-PAP) under the auspices of the Soil Science Society of America (SSSA) and NRCS, or other NRCS-approved program that considers laboratory performance and proficiency to assure accuracy of soil test results. Alternate proficiency testing programs must have solid stakeholder (e.g., water quality control entity, NRCS State staff, growers, and others) support and be regional in scope.

Nutrient values of manure, organic by-products and biosolids must be determined prior to land application.

Manure analyses must include, at minimum, total nitrogen (N), ammonium N, total phosphorus (P) or P₂O₅, total potassium (K) or K₂O, and percent solids, or follow land-grant university guidance regarding required analyses.

Manure, organic by-products, and biosolids samples must be collected and analyzed at least annually, or more frequently if needed to account for operational changes (feed management, animal type, manure handling strategy, etc.) impacting manure nutrient concentrations. If no operational changes occur, less frequent manure testing is allowable where operations can document a stable level of nutrient concentrations for the preceding three consecutive years, unless federal, State, or local regulations require more frequent testing.

Samples must be collected, prepared, stored, and shipped, following land-grant university guidance or industry practice.

When planning for new or modified livestock operations, acceptable "book values" recognized by the NRCS (e.g., NRCS Agricultural Waste Management Field Handbook) and the land-grant university, or analyses from similar operations in the geographical area, may be used if they accurately estimate nutrient output from the proposed operation.

Manure testing analyses must be performed by laboratories successfully meeting the requirements and performance standards of the Manure Testing Laboratory Certification program (MTLCP) under the auspices of the Minnesota Department of Agriculture, or other NRCS-approved program that considers laboratory

performance and proficiency to assure accurate manure test results.

Nutrient Application Rates.

Planned nutrient application rates for nitrogen, phosphorus, and potassium must not exceed land-grant university guidelines or industry practice when recognized by the university.

At a minimum, determination of rate must be based on crop/cropping sequence, current soil test results, realistic yield goals, and NRCS-approved nutrient risk assessments.

If the land-grant university does not provide specific guidance that meets these criteria, application rates must be based on plans that consider realistic yield goals and associated plant nutrient uptake rates.

Realistic yield goals must be established based on historical yield data, soil productivity information, climatic conditions, nutrient test results, level of management, and local research results considering comparable production conditions.

Estimates of yield response must consider factors such as poor soil quality, drainage, pH, salinity, etc., prior to assuming that nitrogen and/or phosphorus are deficient.

For new crops or varieties, industry-demonstrated yield, and nutrient utilization information may be used until land-grant university information is available.

Lower-than-recommended nutrient application rates are permissible if the grower's objectives are met.

Applications of biosolids, starter fertilizers, or pop-up fertilizers must be accounted for in the nutrient budget.

Nutrient Sources.

Nutrient sources utilized must be compatible with the application timing, tillage and planting system, soil properties, crop, crop rotation, soil organic content, and local climate to minimize risk to the environment.

Nutrient Application Timing and Placement.

Timing and placement of all nutrients must correspond as closely as practical with plant nutrient uptake (utilization by crops), and consider nutrient source, cropping system limitations, soil properties, weather conditions,

drainage system, soil biology, and nutrient risk assessment results.

Nutrients must not be surface-applied if nutrient losses offsite are likely. This precludes spreading on:

- frozen and/or snow-covered soils, and
- when the top 2 inches of soil are saturated from rainfall or snow melt.

Exceptions for the above criteria can be made for surface-applied manure when specified conditions are met and adequate conservation measures are installed to prevent the offsite delivery of nutrients. The adequate treatment level and specified conditions for winter applications of manure must be defined by NRCS in concurrence with the water quality control authority in the State. At a minimum, the following site and management factors must be considered:

- slope,
- organic residue and living covers,
- amount and form of nutrients to be applied, and
- adequate setback distances to protect local water quality.

Additional Criteria to Minimize Agricultural Nonpoint Source Pollution of Surface and Groundwater

Planners must use the current NRCS-approved nitrogen, phosphorus, and soil erosion risk assessment tools to assess the risk of nutrient and soil loss. Identified resource concerns must be addressed to meet current planning criteria (quality criteria). Technical criteria for risk assessments can be found in NI-190-302.

When there is a high risk of transport of nutrients, conservation practices must be coordinated to avoid, control, or trap manure and nutrients before they can leave the field by surface or subsurface drainage (e.g., tile). The number of applications and the application rates must also be considered to limit the transport of nutrients to tile.

Nutrients must be applied with the right placement, in the right amount, at the right time, and from the right source to minimize nutrient losses to surface and groundwater. The

following nutrient use efficiency strategies or technologies must be considered:

- slow and controlled release fertilizers
- nitrification and urease inhibitors
- enhanced efficiency fertilizers
- incorporation or injection
- timing and number of applications
- soil nitrate and organic N testing
- coordinate nutrient applications with optimum crop nutrient uptake
- Corn Stalk Nitrate Test (CSNT), Pre-Sidedress Nitrate Test (PSNT), and Pre-Plant Soil Nitrate Test (PPSN)
- tissue testing, chlorophyll meters, and spectral analysis technologies
- other land-grant university recommended technologies that improve nutrient use efficiency and minimize surface or groundwater resource concerns.

Additional Criteria Applicable to Properly Utilize Manure or Organic By-Products as a Plant Nutrient Source

When manures are applied, and soil salinity is a concern, salt concentrations must be monitored to prevent potential crop damage and/or reduced soil quality.

The total single application of liquid manure:

- must not exceed the soil's infiltration or water holding capacity
- be based on crop rooting depth
- must be adjusted to avoid runoff or loss to subsurface tile drains.

Crop production activities and nutrient use efficiency technologies must be coordinated to take advantage of mineralized plant-available nitrogen to minimize the potential for nitrogen losses due to denitrification or ammonia volatilization.

Nitrogen and phosphorus application rates must be planned based on risk assessment results as determined by NRCS-approved nitrogen and phosphorus risk assessment tools.

For fields receiving manure, where phosphorus risk assessment results equate to LOW risk, additional phosphorus and potassium can be applied at rates greater than crop removal not to exceed the nitrogen requirement for the succeeding crop. For fields receiving manure, where phosphorus risk assessment results equate to MODERATE risk, additional phosphorus and potassium may be applied at a phosphorus crop removal rate for the planned crops in the rotation. When phosphorus risk assessment results equate to HIGH risk, additional phosphorus and potassium may be applied at phosphorus crop removal rates if the following requirements are met:

- a soil phosphorus drawdown strategy has been implemented, and
- a site assessment for nutrients and soil loss has been conducted to determine if mitigation practices are required to protect water quality.
- any deviation from these high risk requirements must have the approval of the Chief of the NRCS.

Manure or organic by-products may be applied on legumes at rates equal to the estimated removal of nitrogen in harvested plant biomass, not to exceed land grant university recommendations.

Manure may be applied at a rate equal to the recommended phosphorus application, or estimated phosphorus removal in harvested plant biomass for the crop rotation, or multiple years in the crop sequence at one time. When such applications are made, the application rate must not exceed the acceptable phosphorus risk assessment criteria, must not exceed the recommended nitrogen application rate during the year of application or harvest cycle, and no additional phosphorus must be applied in the current year and any additional years for which the single application of phosphorus is supplying nutrients.

Additional Criteria to Protect Air Quality by Reducing Odors, Nitrogen Emissions and the Formation of Atmospheric Particulates

To address air quality concerns caused by odor, nitrogen, sulfur, and/or particulate emissions; the source, timing, amount, and placement of nutrients must be adjusted to minimize the

negative impact of these emissions on the environment and human health. One or more of the following may be used:

- slow or controlled release fertilizers
- nitrification inhibitors
- urease inhibitors
- nutrient enhancement technologies
- incorporation
- injection
- stabilized nitrogen fertilizers
- residue and tillage management
- no-till or strip-till
- other technologies that minimize the impact of these emissions

Do not apply poultry litter, manure, or organic by-products of similar dryness/density when there is a high probability that wind will blow the material offsite.

Additional Criteria to Improve or Maintain the Physical, Chemical, and Biological Condition of the Soil to Enhance Soil Quality for Crop Production and Environmental Protection

Time the application of nutrients to avoid periods when field activities will result in soil compaction.

In areas where salinity is a concern, select nutrient sources that minimize the buildup of soil salts.

CONSIDERATIONS

Elevated soil test phosphorus levels are detrimental to soil biota. Soil test phosphorus levels should not exceed State-approved soil test thresholds established to protect the environment.

Use no-till/strip-till in combination with cover crops to sequester nutrients, increase soil organic matter, increase aggregate stability, reduce compaction, improve infiltration, and enhance soil biological activity to improve nutrient use efficiency.

Use nutrient management strategies such as cover crops, crop rotations, and crop rotations with perennials to improve nutrient cycling and reduce energy inputs.

Use variable-rate nitrogen application based on expected crop yields, soil variability, soil nitrate or organic N supply levels, or chlorophyll concentration.

Use variable-rate nitrogen, phosphorus, and potassium application rates based on site-specific variability in crop yield, soil characteristics, soil test values, and other soil productivity factors.

Develop site-specific yield maps using a yield monitoring system. Use the data to further diagnose low- and high- yield areas, or zones, and make the necessary management changes. See Title 190, Agronomy Technical Note (TN) 190.AGR.3, Precision Nutrient Management Planning.

Use manure management conservation practices to manage manure nutrients to limit losses prior to nutrient utilization.

Apply manure at a rate that will result in an “improving” Soil Conditioning Index (SCI) without exceeding acceptable risk of nitrogen or phosphorus loss.

Use legume crops and cover crops to provide nitrogen through biological fixation and nutrient recycling.

Modify animal feed diets to reduce the nutrient content of manure following guidance contained in Conservation Practice Standard (CPS) Code 592, Feed Management.

Soil test information should be no older than 1 year when developing new plans.

Excessive levels of some nutrients can cause induced deficiencies of other nutrients, e.g., high soil test phosphorus levels can result in zinc deficiency in corn.

Use soil tests, plant tissue analyses, and field observations to check for secondary plant nutrient deficiencies or toxicity that may impact plant growth or availability of the primary nutrients.

Use the adaptive nutrient management learning process to improve nutrient use efficiency on farms as outlined in the NRCS' National Nutrient Policy in GM 190, Part 402, Nutrient Management.

Potassium should not be applied in situations where an excess (greater than soil test potassium recommendation) causes nutrient imbalances in crops or forages.

Workers should be protected from and avoid unnecessary contact with plant nutrient sources. Extra caution must be taken when handling anhydrous ammonia or when dealing with organic wastes stored in unventilated enclosures.

Material generated from cleaning nutrient application equipment should be utilized in an environmentally safe manner. Excess material should be collected and stored or field applied in an appropriate manner.

Nutrient containers should be recycled in compliance with State and local guidelines or regulations.

Considerations to Minimize Agricultural Nonpoint Source Pollution of Surface and Groundwater.

Use conservation practices that slow runoff, reduce erosion, and increase infiltration, e.g., filter strip, contour farming, or contour buffer strips. These practices can also reduce the loss of nitrates or soluble phosphorus.

Use application methods and timing strategies that reduce the risk of nutrient transport by ground and surface waters, such as:

- split applications of nitrogen to deliver nutrients during periods of maximum crop utilization,
- banded applications of nitrogen and/or phosphorus to improve nutrient availability,
- drainage water management to reduce nutrient discharge through drainage systems, and
- incorporation of surface-applied manures or organic by-products if precipitation capable of producing runoff or erosion is forecast within the time of planned application.

Use the agricultural chemical storage facility conservation practice to protect air, soil, and water quality.

Use bioreactors and multistage drainage strategies when approved by the land-grant university.

Considerations to Protect Air Quality by Reducing Nitrogen and/or Particulate Emissions to the Atmosphere.

Avoid applying manure and other by-products upwind of inhabited areas.

Use high-efficiency irrigation technologies (e.g., reduced-pressure drop nozzles for center pivots) to reduce the potential for nutrient losses.

PLANS AND SPECIFICATIONS

The following components must be included in the nutrient management plan:

- aerial site photograph(s)/imagery or site map(s), and a soil survey map of the site,
- soil information including: soil type surface texture, pH, drainage class, permeability, available water capacity, depth to water table, restrictive features, and flooding and/or ponding frequency,
- location of designated sensitive areas and the associated nutrient application restrictions and setbacks,
- for manure applications, location of nearby residences, or other locations where humans may be present on a regular basis, and any identified meteorological (e.g., prevailing winds at different times of the year), or topographical influences that may affect the transport of odors to those locations,
- results of approved risk assessment tools for nitrogen, phosphorus, and erosion losses,
- documentation establishing that the application site presents low risk for phosphorus transport to local water when phosphorus is applied in excess of crop removal.
- current and/or planned plant production sequence or crop rotation,
- soil, water, compost, manure, organic by-product, and plant tissue sample analyses applicable to the plan,
- soil test phosphorus and/or risk assessment levels at which the plan would require that no phosphorus in any form be applied,
- when soil phosphorus levels are increasing, include a discussion of the risk associated

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with phosphorus accumulation and a proposed phosphorus draw-down strategy,

- realistic yield goals for the crops,
- complete nutrient budget for nitrogen, phosphorus, and potassium for the plant production sequence or crop rotation,
- listing and quantification of all nutrient sources and form,
- all enhanced efficiency fertilizer products that are planned for use,
- in accordance with the nitrogen and phosphorus risk assessment tool(s), specify the recommended nutrient application source, timing, amount (except for precision/variable rate applications specify method used to determine rate), and placement of plant nutrients for each field or management unit, and
- guidance for implementation, operation and maintenance, and recordkeeping.

In addition, the following components must be included in a precision/variable rate nutrient management plan:

- Document the geo-referenced field boundary and data collected that was processed and analyzed as a GIS layer or layers to generate nutrient or soil amendment recommendations.
- Document the nutrient recommendation guidance and recommendation equations used to convert the GIS base data layer or layers to a nutrient source material recommendation GIS layer or layers.
- Document if a variable rate nutrient or soil amendment application was made.
- Provide application records per management zone or as applied map within individual field boundaries (or electronic records) documenting source, timing, method, and rate of all applications that resulted from use of the precision agriculture process for nutrient or soil amendment applications.
- Maintain the electronic records of the GIS data layers and nutrient applications for at least 5 years.

If increases in soil phosphorus levels are expected (i.e., when N-based rates are used), the nutrient management plan must document:

- the soil phosphorus levels at which it is desirable to convert to phosphorus based planning and/or no further phosphorus application,
- the potential plan for soil test phosphorus drawdown from the production and harvesting of crops, and
- management activities or techniques used to reduce the potential for phosphorus transport and loss,
- for AFOs, a quantification of manure produced in excess of crop nutrient requirements, and
- a long-term strategy and proposed implementation timeline for reducing soil P to levels that protect water quality and allow for application of P at crop-removal rates,
- a rationale for P applications in excess of crop removal when the phosphorus risk assessment equates to a low risk for P transport to surface or groundwater.

OPERATION AND MAINTENANCE

Conduct periodic plan reviews to determine if adjustments or modifications to the plan are needed. At a minimum, plans must be reviewed and revised, as needed with each soil test cycle, changes in manure volume or analysis, crops, or crop management.

Fields receiving animal manures and/or biosolids must be monitored for the accumulation of heavy metals and phosphorus in accordance with land-grant university guidance and State law.

Significant changes in animal numbers, management, and feed management will necessitate additional manure analyses to establish a revised average nutrient content.

Calibrate application equipment to ensure accurate distribution of material at planned rates.

Document the nutrient application rate. When the applied rate differs from the planned rate, provide appropriate documentation for the change.

Records must be maintained for at least 5 years to document plan implementation and maintenance. As applicable, records include:

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- soil, plant tissue, water, manure, and organic by-product analyses resulting in recommendations for nutrient application,
- quantities, analyses and sources of nutrients applied,
- dates, and method(s) of nutrient applications, source of nutrients, and rates of application,
- weather conditions and soil moisture at the time of application; lapsed time to manure incorporation; rainfall or irrigation event,
- crops planted, planting and harvest dates, yields, nutrient analyses of harvested biomass, and crop residues removed,
- dates of plan review, name of reviewer, and recommended changes resulting from the review, and
- all enhanced efficiency fertilizer products used.

Additional records for precision/variable rate sites must include:

- maps identifying the variable application source, timing, amount, and placement of all plant nutrients applied, and
- GPS-based yield maps for crops where yields can be digitally collected.

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- Schepers, J.S., and W.R. Ruan, (eds.) 2008. Nitrogen in agricultural systems. Agron. Monogr. no. 49, American Society of Agronomy (ASA), Crop Science Society of America (CSSA), Soil Science Society of America (SSSA). Madison, WI.
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- U.S. Department of Agriculture, Natural Resources Conservation Service. 2011. Title 190, General Manual, (GM), Part 402, Nutrient Management. Washington, DC.
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APPENDIX F

*United States Environmental Protection Agency
Concentrated Animal Feeding Operations
– Livestock Operation Inspection*

Animal Agriculture

Concentrated Animal Feeding Operations – Livestock Operation Inspection



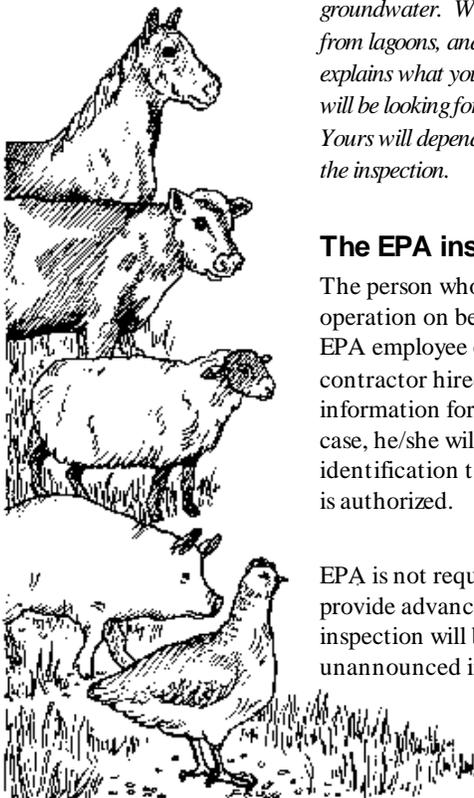
Ag Center

Helping Agriculture Comply with Environmental Requirements

F O C U S O N

What To Expect When EPA Inspects Your Livestock Operation

The U.S. Environmental Protection Agency inspects livestock facilities to make sure the operators comply with federal environmental laws. Note, EPA may conduct inspections even in States that are authorized to administer (including issuing permits) federal environmental laws. Poorly managed livestock operations can pollute rivers, lakes, estuaries, and groundwater. Where pollution occurs it is most often caused by runoff from feedlots, spills from lagoons, and problems caused by incorrect land application of manure. This fact sheet explains what you can expect during an EPA inspection. It tells you what a typical inspector will be looking for and what may happen afterwards. Not all inspections are the same. Yours will depend on what kind of operation you have and on EPA's reason for conducting the inspection.



The EPA inspector

The person who inspects your operation on behalf of EPA will be an EPA employee or a trained, capable contractor hired by EPA to gather information for the Agency. In either case, he/she will show you identification to confirm that the visit is authorized.

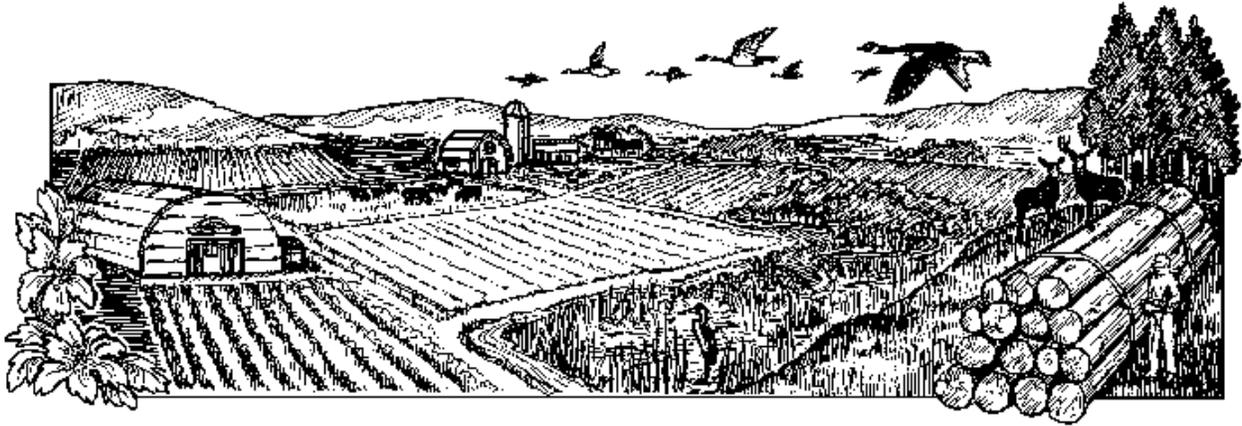
EPA is not required to, but may provide advance notice that an inspection will be conducted. In fact, unannounced inspections allow the

inspector to better observe routine site conditions and practices.

Purpose of the inspection

EPA conducts two primary types of inspections of animal feeding operations (AFOs):

- to help decide whether a facility requires a permit because it qualifies as a Concentrated Animal Feeding Operation (CAFO)
- to determine whether a CAFO is complying with federal



environmental laws including federal permits.

Is your facility an AFO or a CAFO?

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

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

The revised regulations, published February 12, 2003, state that a **large** CAFO is an AFO with at least:

- 700 mature dairy cows
- 1,000 beef cattle or heifers
- 2,500 swine (each 55 lbs or more)
- 10,000 swine (each under 55 lbs)
- 30,000 ducks (other than liquid manure handling systems)
- 5,000 ducks (liquid manure handling systems)
- 30,000 laying hens or broilers (liquid manure handling systems)

- 125,000 chickens except laying hens (other than liquid manure handling systems)
- 82,000 laying hens (other than liquid handling systems)
- 1,000 veal calves
- 500 horses
- 10,000 sheep or lambs
- 55,000 turkeys

Your operation is a **medium** CAFO if:

- Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; **or**
- Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across or through the facility or otherwise come into direct contact with the confined animals. (For example, if your animals come into contact with surface water running through the area where they are confined.)

And your operation has at least:

- 200 mature dairy cows
- 300 beef cattle or heifers
- 750 swine (each 55 lbs or more)

The EPA inspector's goal is to gather enough information to determine if federal environmental laws or permit requirements are being followed.

The inspector will gather information to help EPA judge whether your operation meets the qualifications of a CAFO, should be designated as a CAFO, or is classified as an AFO.

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If you have any questions about the inspection or enforcement process, contact your inspector or EPA regional office.

- 3,000 swine (each under 55 lbs)
- 10,000 ducks (other than liquid manure handling systems)
- 1,500 ducks (liquid manure handling systems)
- 9,000 chickens (liquid manure handling systems)
- 37,500 chickens except laying hens (other than liquid manure handling systems)
- 25,000 laying hens (other than liquid manure handling systems)
- 300 veal calves
- 150 horses
- 3,000 sheep or lambs
- 16,500 turkeys

EPA (or States/Tribes where authorized) may also designate an operation as a CAFO if the inspection determines that the operation, regardless of its size, is a significant source of pollution. This determination considers a number of factors including slope, vegetation, and the proximity to surface waters.

Does your CAFO comply with the law?

If your facility is a CAFO, you must apply for a permit. A limited number of large CAFOs may be able to avoid a permit application if they can demonstrate “no potential to discharge.” The term “no potential to discharge” means that there is no potential for any CAFO manure, litter, or wastewater to be added to water of the United States from an operation’s production or land application areas, without question.

For operations defined as CAFOs prior to April 14, 2003, you should already have a permit. If you do not have a permit you should contact your permitting authority and apply immediately.

Operations defined as CAFOs as of April 14, 2003 that were not defined as CAFOs prior to that date should seek a permit as specified by the permitting authority but no later than April 13, 2006.

For newly constructed, or expanding facilities, or for designated CAFOs, consult your permitting authority for applicable time frames.

During an EPA inspection of a permitted CAFO, the inspector will check for compliance with the requirements of the permit. The inspector will examine mainly your manure management systems and any areas where manure is applied to fields.

For all facilities, the inspector will make sure that manure has been managed, handled, and applied in accordance with your permit requirements. These requirements allow for overflows in some cases and discharges from land application areas where manure has been applied in accordance with your permit (see “For More Information” below). For unpermitted CAFO facilities, no discharges are allowed.

Animal Health Concerns

Inspectors know there is a potential that they could pass animal diseases from one feeding facility to another. To minimize that risk, the inspector will follow biosecurity procedures appropriate to your facility. Before the inspector enters the confinement area, let the inspector know of any contagious disease your animals have, any biosecurity procedures you follow, and discuss with the inspector any concerns you have about the effect of the visit on the health of your animals.

The inspection

Most inspectors begin an inspection by writing down some basic information, such as:

- weather conditions
- date
- facility name and address
- name of the owner/operator
- phone number.

You may be asked if you have a state or federal permit and, if so, what it includes. You may be asked if you have filed a Notice of Intent to be covered under a CAFO general permit (if applicable).

Under the February 12, 2003 regulations, CAFO permits will require the operation to meet certain conditions, including implementing a nutrient management plan, submitting annual reports, and keeping records.

The inspector will invite you to accompany him/her on the inspection.

It is a good idea for you to go with the inspector, take notes, and ask questions. The inspector will take notes and record the latitude and longitude of your facility so it can be plotted on a map. He/she may also take photographs, video recordings, and water samples.

To help determine whether your facility is a CAFO or should be designated as a CAFO, you may be asked for basic facility information such as:

- type of operation
- kinds of animals
- number of animals
- the location of drains, irrigation ditches, and waterways nearby.

To determine whether your facility has had a discharge or if there are factors present that could lead to future discharges, you may be asked specific questions including:

- Is any manure being discharged to surface water, or is there any sign of a recent discharge?
- How is manure handled? Is there too much manure in the corrals, fields, or along flush alleys? Is a discharge likely because of the way the manure is being handled?
- Do animals have direct access to surface water, including irrigation canals and drainage ditches?
- Are adequate records maintained?
- How is silage handled? Is runoff controlled?
- How are dead animals handled?

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The EPA or contract inspector generally will not be able to tell you whether violations were found. These decisions are made by an EPA compliance officer who reviews the inspection report.

- Is manure being land-applied? What kind of crops? How often and when? Is a discharge to surface waters likely because of the way the manure is being applied?
- Is there a lagoon? If so, is it made to comply with any requirements that apply? How much freeboard (distance between the contents of the lagoon and the top) is there? Is the lagoon in good condition and properly maintained? When was the last time it was dredged?
- Are there any pipelines or other routes that allow manure to be discharged to ditches, canals, streams, or other waterways?
- How is storm water handled? Are roof drains and gutters well maintained? Is the clean storm water diverted around the animal containment areas and manure piles? Are the corrals well graded?
- How many days of storage are available in lagoons and other wastewater containment structures?

Confidential information

During the inspection, you may be asked to give business information that you do not want the public to be able to get from EPA's files. If so, you may make a claim of confidentiality. For EPA to uphold your claim, you will need to show that the information, if made public, would reveal trade secrets or should for other reasons be considered confidential. The confidential parts of the report can be kept from public view. (Some information is not eligible for confidential treatment by law.)

Possible Actions

If you are found to have violations, there is a range of possible actions EPA can take depending on factors including the number and seriousness of the violations. Possible actions include:

- You may get a *notice of violation*. This will inform you of violations and direct you to correct them. If you have trouble correcting a violation, notify EPA right away.
- You may be issued an *administrative order with or without a proposed administrative penalty*. If an administrative penalty is proposed, you may contact the Agency and ask for a settlement conference, to which you may bring an attorney or consultant.
- For more serious violations or a history of violations, EPA may begin a *civil suit*, asking a court to require you to stop or correct the violation and to impose a penalty.
- If EPA suspects that you have willingly, knowingly, or negligently violated federal law, it may conduct a *criminal investigation*.

State permits

EPA has authorized most States to administer the federal NPDES permitting program. In addition, States may have their own, non-federal permit requirements or other legal requirements for CAFOs. Your EPA regional contact can help you find the appropriate state contact.

Self disclosure of violations

Through its Audit Policy and Small Business Compliance Incentives Policy, EPA encourages you to voluntarily disclose and correct violations. If you meet policy conditions, you may be eligible for penalty reductions and waivers and other benefits. The Small Business Policy is for companies with 100 or fewer employees. You may obtain copies of these documents from the Ag Center or on the internet at: <http://www.epa.gov/compliance/incentives/smallbusiness/index.html>

Compliance assistance contacts

- **EPA's Ag Center**
The Ag Center has many free compliance assistance resources, including fact sheets on CAFO regulations, the EPA/USDA animal feeding operations strategy, Small Business Incentives Policy, etc. You can find Ag Center materials online at <http://www.epa.gov/agriculture> and acquire them toll-free at 1-888-663-2155.
- **EPA Regional Offices**
Region 1 (CT, MA, ME, NH, RI, VT):
(617) 918-1111 or (888) 372-7341
Region 2 (NJ, NY, PR, VI):
(212) 637-3000
Region 3 (DE, DC, MD, PA, VA, WV):
(215) 814-5000 or (800) 438-2474
Region 4 (AL, FL, GA, KY, MS, NC, SC, TN):

(404) 562-9900 or (800) 241-1754

Region 5 (IL, IN, MI, MN, OH, WI):

(312) 353-2000 or (800) 621-8431

Region 6 (AR, LA, NM, OK, TX):

(214) 665-2200 or (800) 887-6063

Region 7 (IA, KS, MO, NE):

(913) 551-7000 or (800) 848-4568

Region 8 (CO, MT, ND, SD, UT, WY):

(303) 312-6312 or (800) 227-8917

Region 9 (AZ, CA, HI, NV):

(415) 947-8021

Region 10 (AK, ID, OR, WA):

(206) 553-1200 or (800) 424-4372

Technical assistance contacts

- **Natural Resources Conservation Service (NRCS)**
NRCS can provide help with manure management. For listings of offices near you, visit: <http://offices.usda.gov/> or <http://www.nrcs.usda.gov/>
- **Cooperative State Research, Education, and Extension Service (CSREES)**
U.S. Department of Agriculture
Washington, D.C. 20250-0900
(202) 720-3029
<http://www.reeusda.gov/>
- **National Association of State Departments of Agriculture (NASDA)**
1156 15th Street, NW, Suite 1020
Washington, D.C. 20005
(202) 296-9680

<http://www.nasda-hq.org/>

- **National Association of
Conservation Districts (NACD)**
509 Capital Court, NE
Washington, D.C. 20002-4946
(202) 547-6223
<http://www.nacdnet.org/>

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

For more information

This fact sheet provides only a general overview of how EPA inspects livestock operations. To learn more about EPA or state requirements and how they may apply to you, read the federal and state regulations or contact your EPA regional office or state government.

EPA's publications, "Will My Operation Be Regulated?" (EPA 833-F-02-006) and "What Are the Federal Record-Keeping and Reporting Requirements?"

(EPA-833-F-02-013) provide more detail on how CAFOs are defined and what is required of CAFOs.

To order these and other CAFO-related publications, call the Ag Center's toll-free number, 1-888-663-2155, or visit the publications page at the Ag Center web site: <http://www.epa.gov/agriculture/publications.html>. All publications are available by mail, and some can be downloaded from the web site. For a complete publications list, request document 10001, "Ag Center Publications."

If you are a small business, EPA's Office of Enforcement and Compliance Assurance offers a fact sheet on Small Business Resources that can provide a variety of compliance assistance tools to assist you in complying with federal and state environmental laws. This fact sheet is available through the Ag Center; please ask for document number 50017, "U.S. EPA Small Business Resources."

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