

IOWA REGULATIONS & NUISANCE CASE UPDATE

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Iowa Environmental Regulations Handbook

- In depth discussion and analysis of environmental regulations, with practical points for analysis and compliance
 - DNR Construction Requirements
 - DNR Manure Management Requirements
 - Updates on these chapters and other state and federal environmental regulations and nuisance
- www.iowapork.org; Producer Resources; Iowa Environmental Regulations Handbook

ANIMAL CAPACITY

Animal weight capacity (AWC) and animal unit capacity (AUC)

- If the CFO was constructed before 2002 legislation and not expanded since, use animal weight capacity (AWC) for DNR regulations
- If the CFO was constructed before 2002 legislation and expanded since, use AWC for separation distances but AUC for other DNR regs
- AWC: the maximum number of animals confined at any time in a confinement operation multiplied by the average weight during a production cycle

ANIMAL CAPACITY

Animal weight capacity and animal unit capacity

- If the CFO was constructed after 2002 legislation, use animal unit capacity (AUC) for DNR regulations
- AUC: maximum number of animals maintained at any one time in a confinement operation multiplied by the animal unit factor
 - Swine animal unit factor
 - .4 – swine weighing more than 55 pounds
 - .1 – swine weighing between 15 & 55

ANIMAL CAPACITY

Animal unit capacity – double-stocking, etc.

- Example: 1,200 hd wean-to-finish site (480 AUC) double stocked with weaned pigs with 1,200 hd moved off-site for finishing
 - AUC:
 - Nursery phase: $2,400 \times .1 = 240$
 - Finishing phase: $1,200 \times .4 = 480$
 - AUC for site is 480

ANIMAL CAPACITY

Animal unit capacity – double-stocking, etc.

- Must double-stocked pigs be moved before any pigs reach 55 pounds? Or before the average weight of the pigs on-site is 55 pounds?
 - Neither because the AUC calculation is based on the number of pigs weighing more than 55 pounds and the no. weighing 55 pounds or less
 - Safest approach may be to remove all overstock pigs before any reach 55 pounds, **HOWEVER**, AUC law allows some of the pigs to weigh more than 55 pounds if some weigh 55 pounds or less

ANIMAL CAPACITY

Animal unit capacity – double-stocking, etc.

- AUC calculation:
- 2,400 hd wean-to-finish site (960 AUC) double-stocked
 - No more than 1,600 can weigh more than 55 pounds before the double-stocked one-half must be moved off site ($1,600 \times .4 = 640$ au's & $3,200 \times .1 = 320$ au's for a total of 960 au's)
 - Works out to a factor of .333 (i.e., to determine the maximum number of head that can weigh more than 55 pounds before reaching AUC, multiply the total number on-site while double stocked by a factor of .333)
 - Triple stocked factor is .111
- Producers must account for the additional manure from additional stocking of weaned pigs in their MMP

MASTER MATRIX

- Supporting documentation, including design, operation, and maintenance plans.
 - If a county does not pass the matrix, DNR independently scores the matrix, including items the county gave a passing score
 - DNR will not allow changes to the matrix after the county fails it, unless the county agrees
 - DNR has failed most matrices it has scored, including items the county has passed, such as the items for formed manure storage and covered manure storage

MASTER MATRIX

- DNR interpretation of requirements upon independent review following county denial:
 - Requirements for design, operation & maintenance plans for:
 - landscaping
 - covered manure storage
 - formed storage
 - truck turnaround
 - feeding & watering systems to reduce manure volume

CONFINEMENT OPERATIONS

One or two?

- To determine if a permit or manure management plan is required, and if concrete standards apply:
- Two CFO's are one operation when:
 - At least one of the two is constructed after 5/21/98
 - There is common ownership or management, and
 - They are adjacent; or
 - Utilize a common area or system for manure application
- Adjacent – CFO's within:
 - 1,250 feet if the combined AUC is $<1,000$
 - 2,500 feet if the combined AUC is $>1,000$

CONFINEMENT OPERATIONS

One or two?

- To determine required separation distances:
- Two CFO's are considered to be one operation when:
 - At least one of the two is constructed after 3/21/96
 - There is common ownership or management, and
 - They are adjacent
- Adjacent – CFO's within:
 - 1,250 feet if the combined AUC is $<3,000$ for finishing or nursery ($<1,250$ AUC for farrow-gest. or $<2,700$ AUC for farrow to fin.)
 - 1,500 ft. if the combined AUC is $\geq 3,000$ but $<5,000$ for finishing or nursery ($\geq 1,250$ but $<2,000$ AUC for farrow-gest. or $\geq 2,700$ but $<5,400$ AUC for farrow to fin.)
 - 2,500 feet if the combined AUC is $\geq 5,000$ for finishing or nursery ($\geq 2,000$ AUC for farrow-gest. or $\geq 5,400$ AUC for farrow to fin.)

SEPARATION DISTANCES

Residences, businesses, road rights of way etc.

- Exemptions:
 - Written waiver from owner of residence, etc. – must be notarized & recorded @ co. recorder
 - Also may want to include:
 - Covenant-not-to sue for nuisance
 - Approval by residence mortgage holder
 - Expansion of CFO -- use distances in effect at time CFO constructed (if CFO constructed before any distances required, 1995-1999 distances apply)
 - <2x cap., <1,000 AUC, and new structure built further from residence, etc.
 - Residence, etc. built after CFO began operation

DNR – EPA WORKPLAN

- Confinement Feeding Operation (CFO)
 - An AFO in which animals are confined to areas which are totally roofed
- Open Feedlot Operation (OFO)
 - Unroofed or partially roofed AFO if crop, vegetation, or forage growth or residue cover is not maintained as part of the AFO while the animals are confined
- CFO cannot discharge under Iowa law

DNR – EPA WORKPLAN

- CAFO - Three types:
 - Large CAFO, Medium CAFO
 - Designated CAFO
- CAFO must obtain a federal discharge permit (NPDES) if the CAFO discharges pollutants to a water of the US
- Without an NPDES permit, can be no discharge – with an NPDES permit, can discharge from greater than 25-year, 24 hour storm event – unless a CFO under Iowa law

DNR – EPA WORKPLAN

LARGE CAFO

- More than the number of animals in any one of the following categories:
 - 2,500 swine weighing 55 pounds or more
 - 10,000 swine weighing less than 55 pounds
 - 125,000 chickens other than laying hens OR 82,000 laying hens (other than liquid manure)
 - 30,000 laying hens or broilers (liquid manure)
 - 700 mature dairy cows
 - 1,000 cattle
 - 500 horses, 10,000 sheep, 55,000 turkeys
 - DNR rules: 1,000 animal units where more than one category is kept in the same type of operation

DNR – EPA WORKPLAN

MEDIUM CAFO

- The number of animals in any one of the following categories:
 - 750 to 2,499 swine weighing 55 pounds or more
 - 3,000 to 9,999 swine weighing less than 55 pounds
 - Other categories for horses, sheep, turkeys, dairy cattle, cattle and poultry
 - DNR rules: 300-999 animal units where more than one category is kept in the same type of operation
 - AND meet requirements on next slide

DNR – EPA WORKPLAN

MEDIUM CAFO

- Manure or process wastewater is discharged:
 - Into waters of the US through a man-made ditch, flushing system, or other similar man-made device; or
 - Directly into waters of the US which originate outside of and pass over, across or through the facility or otherwise come into direct contact with animals in the AFO.

DNR – EPA WORKPLAN

CAFO - COMBINE CFO/OFO

- EPA rules have never distinguished between OFO's and CFO's
- Since 2003 when EPA rules established separate categories of animals, EPA rules have required OFO & CFO animals in same category to be added together
- Iowa law has always kept OFO & CFO's separate for purposes of Iowa law
- April 2008 - Iowa law incorporated EPA rules combining OFO & CFO animals for NPDES & allowed until 12/31/08 to submit NPDES application
- CAFO/NPDES permit requirements: OFO & CFO animals in same category at an AFO are added together

DNR – EPA WORKPLAN

EPA CAFO RULE

- Mixed animal CAFOs
 - Do not add animal numbers from different categories to determine if CAFO threshold is triggered, as long as all animal numbers are below the threshold and different types of AFO under Iowa law (CFO & OFO)
 - Once the CAFO number threshold is met for one category, all manure generated by the AFO is subject to NPDES requirements
 - Example, hog CFO with more than 2,500 head on the same site as cattle OFO with less than 1,000 head – cattle OFO cannot discharge or must have NPDES permit

DNR – EPA WORKPLAN

DESIGNATED CAFO

- DNR may designate any AFO that is not a Large or Medium CAFO as a CAFO if after an on-site inspection DNR determines it is a significant contributor of manure to waters of the US using the following factors:
 - AFO size & amount of manure discharged
 - AFO location near waters of US
 - Means of conveyance to waters of US
 - Slope, vegetation, rainfall, and other factors

DNR – EPA WORKPLAN

DESIGNATED CAFO

- DNR cannot designate a CAFO with less than the Medium CAFO animal numbers unless:
 - Manure or process wastewater is discharged:
 - Into waters of the US through a man-made ditch, flushing system, or other similar man-made device; or
 - Directly into waters of the US which originate outside of and pass over, across or through the facility or otherwise come into direct contact with animals in the AFO.

DNR – EPA WORKPLAN

DNR EVALUATION

- DNR may evaluate an AFO and order remedial action if:
 - Manure is discharged into a water of the state
 - Manure is causing or may reasonably be expected to cause pollution of a water of the state
 - Manure is causing or may reasonably be expected to cause a violation of state water quality standards

DNR – EPA WORKPLAN

CAFO

- A discharge also includes discharges from land application
- However, ag stormwater discharges do not require an NPDES permit
- An ag stormwater discharge – CAFO must apply manure in compliance with a site specific nutrient management plan

DNR – EPA WORKPLAN

CAFO

- Is NPDES permit needed for an “accidental discharge”?
 - If the cause of an accidental discharge that has occurred in the past has been changed or corrected, the CAFO would not be considered to discharge and an NPDES permit would not be required due to the accidental discharge

DNR – EPA WORKPLAN

NPDES PERMITS

- Proof of a discharge?
 - Computer modeling? – No, 2009 federal administrative law decision – but EPA may be revisiting this approach
 - Flyovers? EPA
 - Inspections
 - Visual observation – photos
 - Samples

DNR – EPA WORKPLAN

NPDES PERMITS

- West Va. federal court decision – Alt v. EPA
 - Poultry producer not required to obtain NPDES permit for exhaust of dust & feathers from building fans
 - Exempt from CWA due to ag stormwater exemption
 - Areas around buildings not a production area (defined to include only animal confinement, manure or raw materials storage, and waste containment areas)
 - EPA has appealed

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - Internet: “EPA/DNR Workplan Materials”
 - DNR to adopt NPDES permit rules for CFO’s that discharge
 - Note: Under Iowa law these rules cannot be more strict than federal rules
 - DNR to revise rules on manure application setbacks for CAFOs with NPDES permits
 - Standard operating procedures for CAFO discharge inspections

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - DNR must conduct desktop assessments and on-site NPDES inspections at all large CAFOs and desktop assessments and, if necessary, on-site inspections at medium CAFOs within 5 years (Sep. 2018 – approx. 20% each year)
 - DNR does desktop assessments based on publicly available information, including DNR files and AFO database – Producers, particularly those with medium-sized CFOs, should now make sure that info is correct before DNR does desktop assessment

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - DNR must prioritize assessments in the following order:
 - AFOs with spills, significant releases, or legally sufficient complaints involving discharges to waters of the U.S. since Aug. 2008.
 - Large open feedlot CAFOs and medium sized open feedlot AFOs, including combined AFOs and CFOs
 - Large CAFO CFOs
 - Medium sized CFOs

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - Are on-site inspections required?
 - Large CAFOs
 - On-site inspections required
 - In conjunction with MMP, earthen basin, or other routine DNR inspections or reviews.
 - Not necessary if there has been a DNR on-site inspection after Nov. 1, 2011 & DNR determines facility does not discharge to water of the U.S. The inspection must be functionally equivalent to NPDES on-site inspections, including having written documentation of findings.

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - Are on-site inspections required?
 - Medium-sized CFOs
 - Discharge to water of U.S. in last 5 years
 - Significant release within last 5 years and the release presented a substantial threat of discharging pollutants to waters of the U.S.
 - CFO is less than ¼ mile from and draining toward a water of the U.S. and uses uncovered manure or litter storage
 - Any others that the desktop assessment indicates an on-site inspection is needed

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - Are on-site inspections required?
 - Combined (OFO & CFO) medium sized AFOs
 - OFO portion is less than $\frac{1}{4}$ mile from and draining toward a water of the U.S. and the OFO portion has more than 300 animal units
 - Any others that the desktop assessment indicates an on-site inspection is needed
 - Medium sized OFOs
 - OFO is less than $\frac{1}{4}$ mile from and draining toward a water of the U.S.
 - Any others that the desktop assessment indicates an on-site inspection is needed

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- DNR on-site inspections of CFOs for discharges requiring an NPDES permit
 - CFOs that have previously had an accidental discharge to a water of the U.S.
 - No NPDES required if the conditions that caused the discharge have changed or been corrected

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- DNR on-site inspections of CFOs for discharges requiring an NPDES permit
 - DNR must contact producer 1 – 3 days before inspection
 - Producer to have MMP and other facility records available
 - DNR will not enter confinement buildings
 - DNR must follow producer's standard bio-security policy, if none, must follow DNR bio-security protocol

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- DNR on-site inspections of CFOs for discharges requiring an NPDES permit
 - When notified of inspection, producers should:
 - Ask for copy of desktop assessment before on-site inspection
 - Discuss with DNR whether previous on-site inspection qualifies for NPDES inspection
 - Inform DNR of bio-security policy
 - Contact consultant, engineer, etc.

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- DNR on-site inspections of CFOs for discharges requiring an NPDES permit - DNR is to:
 - Review MMP and other records
 - Ask about maximum number of head confined at one time over last 12 months
 - Inspect:
 - Manure storage structures
 - Manure stockpiles
 - Perimeter tile – inspection port or outlet
 - Feed storage
 - Mortality handling areas and composting
 - Areas downhill of CFO
 - Discharges? Photos & samples

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- DNR on-site inspections of CFOs for discharges requiring an NPDES permit - after the inspection DNR is to:
 - Complete inspection report within 2 weeks
 - Document whether operation was discharging to a water of the U.S.
 - Include requirements (violations of rules, if any, and time frames for correction) and recommendations (suggested items that are not violations but suggestions to improve environmental performance)
 - Send letter, inspection report and regulatory status form

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - DNR must enforce penalties “to create a stronger deterrence to noncompliance”. Within 60 days DNR must have:
 - Revised penalty calculations, including method to properly calculate economic benefit for noncompliance
 - Developed checklists for enforcement actions

DNR – EPA WORKPLAN

DNR REGULATION OF CAFOs

- Sep. 2013 EPA DNR Work Plan
 - DNR must provide progress updates
 - Quarterly reports to EPA and post on DNR website
 - Submit annual reports.
 - If DNR hasn't completed 20% of the NPDES inspections each year, they must propose modifications to EPA to meet the 5 year requirement

AG NUISANCE CASES

Iowa

- No ag nuisance cases went to trial in Iowa in 2009, 2010, 2011, 2012 or 2013
- One ag nuisance case currently pending in Iowa courts
 - Poweshiek County - jury trial set for 11/18/14
 - Wapello County(case filed 11/21/13 but dismissed 1/2/14 for failure to mediate – may be filed again after mediation conducted)

NUISANCE

Steps to help to avoid lawsuit

- Location
 - Separation distance, prevailing winds & topography
- Tree buffers
 - Existing trees and fast growing trees planted with slower growing species
- Ventilation and exhaust fan management
- Management of manure storage and application
- Clean pigs and buildings
- Mortality handling
- Overall operational environmental management, including neighbor communication and relations

NUISANCE

Protection for producer

- Insurance
 - Standard farm liability policies normally don't cover – but producer should always check with their insurance company and/or an attorney
 - Recent court decisions in Illinois and Wisconsin on policy exclusions in favor of producer
 - Environmental policies available
 - Coverage for claims and costs of defense
- Carefully review terms of coverage

MANURE APPLICATION

Frozen or snow covered ground

- Does not apply to:
 - Manure from open feedlot operations
 - Dry manure (can't be pumped & doesn't flow under pressure) (frozen liquid manure does not qualify as dry manure)
 - Liquid manure from confinement operations using formed storage with less than 500 animal units
 - Liquid manure injected or incorporated on the same date of application

MANURE APPLICATION

Frozen or snow covered ground

- No surface application of liquid manure from a confinement operation on
 - Snow covered ground from Dec. 21 to Ap. 1
 - Frozen ground from Feb. 1 to April 1except in an emergency
 - Frozen ground
 - Impermeable to soil moisture
 - Does not include ground frozen only in top 2" or less
 - Snow covered ground
 - At least 1" of snow or ½" of ice

MANURE APPLICATION

Frozen or snow covered ground

- An emergency is when there is an immediate need to apply manure due to unforeseen circumstances beyond the producer's control
 - Includes, but is not limited to:
 - natural disaster
 - unusual weather conditions, or
 - equipment or structural failure

MANURE APPLICATION

Frozen or snow covered ground

- To apply liquid manure on frozen or snow covered ground due to an emergency, a producer must:
 - Telephone DNR field office before application - 2010 rule: caller must give:
 - Owner's name & facility ID No.
 - Reason for emergency app. & app. Date
 - Estimate of gallons to be applied & fields in MMP to be applied on
 - Apply the manure on land identified in the MMP – either in the original MMP or the next updated MMP submitted to DNR after the manure is applied
 - Apply the manure on land with a P Index 2 or less

MANURE APPLICATION

Frozen or snow covered ground

- To apply liquid manure on frozen or snow covered ground due to an emergency, a producer must:
 - During manure application and for 2 weeks after, block any surface tile intake on land in the MMP & down grade
 - Properly manage the manure storage structure – beginning Dec. 21, 2015, must have storage to avoid application from Dec. 21 to April 1 – before then, can still use emer. app. procedures even though not enough storage
 - For structures built after July 1, 2009, have at least 180 days of storage

MANURE APPLICATION

Frozen or snow covered ground

- Other considerations:
 - Remember Iowa law requirement that manure must be applied so as to not cause water pollution
 - Does it comply with EQIP requirements?
 - Will it impact federal NPDES permit requirements?
 - If the operation has a master matrix and took points for injection or incorporation of manure (item 26(e)), to surface apply because of an emergency producer must obtain written approval for a waiver from a DNR field office
 - Contact DNR as soon as possible for assistance, even if not required by law
 - Community and neighbor relations

DNR ENFORCEMENT

Environmental self audits

- Initiated by business owner to determine environmental compliance
- Benefits:
 - Immunity from penalties if a violation discovered during audit and promptly reported to DNR, before DNR investigates
 - Confidentiality of audit report
- No immunity from penalties if:
 - DNR not properly notified
 - Violations are intentional or result in injury to persons, property or environment
 - Substantial economic benefit giving violator a clear economic advantage over competitors

EPA AIR EMISSIONS REPORTING

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) & Emergency Planning and Community Right-to-Know Act (EPCRA) air release reporting requirements:
 - Qualifying Releases must be reported: more than 100 pounds of H₂S or NH₃ per 24 hour period
 - Not required at this time if farm was signed up under EPA Air Compliance Consent Agreement – reporting may be required for these farms once the monitoring study is completed
 - Exemptions

EPA AIR EMISSIONS REPORTING

- EPA Rule – issued 12/18/08, effective 1/20/09: Exemption to CERCLA & EPCRA air release notification requirements:
 - CERCLA – Any release of a hazardous substance from animal waste from farms.
 - EPCRA - Any release of a hazardous substance from animal waste from farms that have fewer than the number of animals in any of the following categories:
 - 700 mature dairy cows
 - 1,000 veal calves
 - 1,000 cattle (other than above)
 - 2,500 swine – 55 pounds or more
 - 10,000 swine – less than 55 pounds
 - Also includes horses, sheep, turkeys, chickens, and ducks

EPA AIR EMISSIONS REPORTING

3 Step Process

- Telephone DNR & Local Emer. Response Committee
- Initial written report within 30 days
- Follow-up written reports:
 - If significant increase
 - Increase in emission levels above the reported normal range of the continuous release
 - Status report
 - Filed within 30 days of the one year anniversary of the initial written report