

# IOWA REGULATIONS & NUISANCE CASE UPDATE

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Eldon McAfee

# 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](http://www.iowapork.org); Producer Resources; Iowa Environmental Regulations Handbook

# AG NUISANCE CASES

Iowa

- No ag nuisance cases went to trial in Iowa in 2009, 2010, 2011 or 2012
- No ag nuisance cases currently pending in Iowa courts

# NUISANCE

## Steps to help to avoid lawsuit

- Location
  - Separation distance
  - Prevailing winds
- Tree buffers
  - Existing trees
  - Fast growing trees planted with slower growing species
- Biofilters
- Clean pigs and buildings
- Manure treatments and additives
- Timing of manure agitation and application

# 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
  - Environmental policies available
    - Coverage for claims and costs of defense
    - Carefully review terms of coverage

# AFOs- IOWA LAW

- 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

# CAFO (CONCENTRATED AFO)

- 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

# LARGE CAFO

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

# MEDIUM CAFO

- The number of animals in any one of the following categories:
  - 200 to 699 mature dairy cows
  - 300 to 999 cattle
  - 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, chickens
  - 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

# 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.

# 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

# 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
  - 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

# 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

# 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 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

# 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

# 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 or propose to discharge and an NPDES permit would not be required due to the accidental discharge

# NPDES PERMITS

- Proof of a discharge?
  - Computer modeling? – No, 2009 federal administrative law decision
  - Flyovers?
  - Inspections
    - Visual observation – photos
    - Samples

# EPA CAFO RULE

NPPC et. al. v. EPA (March 2011)

- Court struck down EPA rule requiring NPDES permit if operation proposes to discharge and ruled, as in 2005

Waterkeeper case, there must be an actual discharge for NPDES permit to be required

# EPA CAFO RULE

July 30, 2012 EPA revised CAFO regulations, without public comment, as follows:

- The requirement that CAFOs that 'propose to discharge' must have NPDES permits was deleted
- The voluntary certification procedures for CAFOs that propose to discharge were deleted
- EPA CAFO rule now requires NPDES permit if there is a discharge from a large or medium CAFO, or if designated as a CAFO

# DNR REGULATION OF CAFOs

- Sep. 2007 petition by ICCI, Sierra Club and EIP to EPA demanding that EPA withdraw DNR authority for NPDES permits for CAFOs
- EPA required Iowa code and DNR rule changes to address allegations in petition, even though allegations were not proven
- Aug. 18, 2011 - Petitioners filed Notice of Intent to Sue EPA for EPA's failure to respond to the Petition
- July 12, 2012 – EPA released initial report

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report – EPA expects DNR to:
  - Modify inspection and enforcement procedures to document observations
  - Revise its inspection program in determining whether CAFOs are discharging
  - Establish a plan to timely evaluate medium sized open feedlots and confinement operations with more than 1,000 animal units to “establish their regulatory status”
  - Evaluate Iowa manure application setbacks

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - DNR responded on Sep. 11
    - Rebutted allegations that enforcement was not adequate
    - Described corrective actions, including a proposed plan and timeline on NPDES permit inspections for confinement operations and medium CAFOs
  - EPA invited public comment
  - On Oct. 31 IPPA and other Iowa commodity organizations commented on both the EPA report and the DNR response

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - Draft Work Plan – issued by EPA
    - 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
    - DNR to develop standard operating procedures for CAFO discharge inspections

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - Draft Work Plan – issued by EPA
    - DNR must conduct NPDES inspections at all large and medium CAFOs by 12/31/2018 (20% each year)
    - By 2/1/2013 DNR must provide EPA with a list of all known large and medium AFOs and a plan to identify unknown operations
    - DNR estimates 8,000 inspections and that it will need more full time staff - DNR agrees to pursue funding in the 2013 legislative session

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - Draft Work Plan – issued by EPA
    - By 3/1/2013 DNR must give EPA inspection plan for 2013 and plan for remaining years by 8/1/2013
    - DNR must prioritize inspections in the following order:
      - AFOs with spills or complaints
      - Large open feedlot CAFOs and medium sized open feedlot AFOs
      - All AFOs with discharges in last 10 yrs
      - Large CAFO CFOs
      - Medium sized CFOs

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - Draft Work Plan – issued by EPA
    - DNR must enforce penalties “to create a stronger deterrence to noncompliance”. By 3/1/2013 DNR must:
      - Revise penalty calculations, including method to properly calculate economic benefit for noncompliance
      - Develop checklists for enforcement actions

# DNR REGULATION OF CAFOs

- July 12, 2012 EPA initial report:
  - Draft Work Plan – issued by EPA
    - 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

# DNR REGULATION OF CAFOs

- DNR inspections of CFOs for discharges requiring an NPDES permit :
  - CFOs that have had an accidental discharge in the previous 10 years
    - Have the conditions that caused the discharge changed or been corrected
  - Manure storage areas
  - Feed storage
  - Mortality composting
  - Areas around buildings
    - discharges from exhaust fans that may be discharged through stormwater runoff
    - spilled manure

# COMPOSTING MORTALITIES

- 500 ft. from a residence other than the producer's
- Not in a wetland
- 100 ft. from private well, 200 ft. from public well
- 50 ft. from property lines
- 100 ft. from flowing or intermittent streams, lakes or ponds
- Minimize formation of leachate & prevent runoff into and out of the compost facility
- Minimize ponding, any ponding that occurs must be corrected within 48 hours
- All weather surface of compacted soil, compacted granular aggregates, asphalt, concrete or other relatively impermeable material

# COMPOSTING MORTALITIES

- Minimize odors, dust, noise, litter and vectors which may cause nuisance conditions or health hazard
- Storage of finished compost for no more than 18 months
- Mortalities may be composted off-site at another livestock operation without a permit – no restriction on distance and do not have to be from the same owner or operator
- Mortalities that died from infectious disease that can be spread by scavengers or insects or that died from a reportable disease must be disposed of under Iowa Dept. of Ag requirements

# COMPOSTING MORTALITIES

- Transportation vehicles must be constructed to prevent release of mortality contaminated materials
- In transporting, the most direct haul route that avoids biosecurity risks must be used
- Compost facilities must be designed for average annual death loss from all sites using the facility, raw materials, and finished compost
- Mortalities from catastrophic death losses (fire or power outage) cannot be composted until DNR approves

# COMPOSTING MORTALITIES

- Mortalities must be in the compost within 24 hours
- To control leachate, odors and animal scavenging, must have 12 inch bulking agent cover, 6-12 inches between carcasses, and 12-24 inch base depending on size and number of mortalities
- Compost cannot be removed until soft tissue is fully decomposed
- Compost (including bones) must be applied to cropland to minimize runoff into waters of the state
- Application of compost to other than cropland needs DNR approval (pasture?)
- DNR policy: If mortalities are composted in manure, the compost pile must also meet manure storage structure requirements

# ANIMAL CAPACITY

## Animal weight capacity and animal unit capacity

- 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

# 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
    - composting
    - formed storage
    - truck turnaround
    - feeding & watering systems to reduce manure volume

# MANURE APPLICATION

## Restrictions on liquid manure on soybeans

- 100# N/acre limit on land in an MMP to be planted to soybeans
- 100# N/acre limit “does not apply on or after June 1 of each year” – regular limit of 3.8# N/bu of soybean yield applies
- As required by the rule, in Oct. 2012 the Iowa EPC reviewed all available scientific evidence to decide if the practice should be banned - after the review EPC left the current rule in place

# 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 H<sub>2</sub>S or NH<sub>3</sub> 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

# WATER PRIORITY ALLOCATION

- If any of the following actions have occurred, DNR may take the actions on the following slide:
  - Petition by 25 persons in local area or governmental subdivision
  - Information from state or federal natural resource, research or climatological agency
  - Governor's proclamation
  - Determination by DNR in conjunction with homeland security and emergency management division of the department of public defense

# WATER PRIORITY ALLOCATION

- If any of the actions noted in previous slide have occurred, DNR may suspend or restrict water usage in the following order:
  - Across state line
  - Irrigation of hay, corn, soybeans, oats, grain sorghum or wheat
  - Irrigation of other crops
  - Manufacturing or other industrial processes
  - Generation of electrical power for public
  - Livestock production
  - Human consumption & sanitation - public
  - Human consumption & sanitation – private
- Last 3 uses require Governor proclamation

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- Any farm that:
  - Stores, transfers, or consumes oil or oil products
  - Stores more than 1320 gal. above ground or more than 42000 gal. below ground
- Must develop Spill Prevention Plan (SPP) if an oil spill could reasonably be expected to reach a water of the U.S.

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- Farms that began operation after Aug. 16, 2002 must have SPP in place by May 10, 2013
- Farms in operation before Aug. 16, 2002 are already required to have a SPP in place, but have until May 10, 2013 to update their SPP's

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- Storage on separate farms are not added together to determine threshold storage capacity
- Farmers can determine whether storage structures are on separate farms based on ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- Options for preparing SPP:
  - Farmer may self-certify if farm has total storage capacity 1320 to 10000 gal. above ground & good spill history
    - Use EPA SPP template if no storage container has 5000 gal. or more capacity
    - <http://www.epa.gov/oem/content/spcc/tier1temp.htm>.
  - Profess. engineer must certify if farm has capacity of 10000 gal. or more or has had oil spill

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- SPP must include:
  - List of oil containers
  - Procedures to prevent spills
  - Measures to prevent oil from reaching waters
  - Methods to contain and cleanup oil spill to water
  - List of emergency contacts and first responders

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- These measures should be implemented and in the SPP:
  - Suitable storage containers
  - Overfill prevention for storage containers
  - Storages: earthen/concrete secondary containment, or double walled tanks
  - Transfer areas secondary containment: sorbent materials, drip pans or curbing
  - Inspection & testing for pipes & containers
  - Assistance for cleaning up a spill

# EPA – ON-FARM OIL SPILL PREVENTION PLANS

- SPP must be updated every 5 yrs. or when new storage added
- SPP must be kept at the site, unless not attended to for more than 4 hrs./day, then kept at the nearest farm office
- SPP need not be submitted to EPA, but must be at the farm for EPA inspection

More info:

<http://www.epa.gov/osweroe1/docs/oil/spcc/spccfarms.pdf>