Overview of the Final Concentrated Animal Feeding Operations (CAFOs) Regulations

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Outline

- Clean Water Act (CWA)
- National Pollutant Discharge Elimination System (NPDES)
- Final Federal Regulations for Concentrated Animal Feeding Operations (CAFOs)
Objective of the CWA

- Objective: To restore and maintain the chemical, physical, and biological integrity of the nation’s waters.
Clean Water Act and CAFOs

- Directs EPA to protect surface waters through the point source permitting program (NPDES)
- Specifically names CAFOs as point sources
- Requires EPA to periodically reassess Standards
What is an NPDES Permit?

- A permit is a license granting permission to do something which would be illegal in the absence of the permit.
- Two types of NPDES permits:
  1. A license to discharge pollutants into waters of the US
  2. NO discharge permits
- A permit system for point-source dischargers
- Permits issued by EPA or an authorized State or Tribe
- Five-year permit term
Who Needs an NPDES Permit?

All “point” sources “Discharging pollutants” or having the “potential to discharge” into “waters of the U.S.”

Must obtain an NPDES permit from EPA (or an approved State / Tribe)
NPDES Program Scope

Click on box to the right to play video clip
Waters of the United States

- All waters currently used, used in the past, or susceptible to use for interstate or foreign commerce including all waters which are subject to the ebb and flow of the tide...

- Examples of “Waters of the US” include:
  - rivers and streams
  - lakes and ponds
  - tributaries
  - wetlands
  - sloughs
  - playa lakes
  - territorial seas
  - others...
Why did EPA revise the CAFO regulations?

- Address water quality problems
- Update the 25-year old regulations
- Improve CAFO Program Implementation
- Address a court order
CAFO Rule Guiding Principles

- Simplify and clarify
- Flexibility for States
- Promote manure management practices
- Complement USDA efforts
- Promote new technologies
- Emphasis on large
- Foster voluntary efforts for medium and small
- Consistency with core NPDES
CAFO Rule History

- CWA: CAFOs are point sources
- 1974/1976 CAFO regulations
- EPA/USDA Unified National Strategy for AFOs – 1999
- Proposed Rule – 2000
- Final Rule signed December 15, 2002
- Final Rule published February 12, 2003
- Final Rule effective April 14, 2003
How many operations will be regulated?

- 15,500 CAFOs will require NPDES permits
  - 11,000 Large facilities
  - 4,500 Medium facilities defined as CAFOs
- A limited number of small facilities may be designated
- This captures 60 percent of all AFO manure
Key definitions

- Animal Feeding Operation
  - Confines animals for 45 days in 12 months
  - Sustains no vegetation in confinement area

- Concentrated Animal Feeding Operation
  - Large
  - Medium
    - Stream running through confinement area
    - Man-made conveyance to surface water
  - Small (Designation)
    - Same criteria as Medium
    - Significant contributor of pollutants
    - On-site inspection
# Large CAFO Thresholds

## INDUSTRY THRESHOLDS

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Large CAFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Cows</td>
<td>700</td>
</tr>
<tr>
<td>Veal Calves</td>
<td>1,000</td>
</tr>
<tr>
<td>Beef Cattle</td>
<td>1,000</td>
</tr>
<tr>
<td>Other Cattle (e.g. Heifers)</td>
<td>1,000</td>
</tr>
<tr>
<td>Swine (55 lbs or more)</td>
<td>2,500</td>
</tr>
<tr>
<td>Swine (under 55 lbs)</td>
<td>10,000</td>
</tr>
<tr>
<td>Horses</td>
<td>500</td>
</tr>
<tr>
<td>Sheep or Lambs</td>
<td>10,000</td>
</tr>
<tr>
<td>Turkeys</td>
<td>55,000</td>
</tr>
<tr>
<td>Chickens, liquid manure</td>
<td>30,000</td>
</tr>
<tr>
<td>Chickens, other than a liquid manure system</td>
<td>125,000 (not laying hens)</td>
</tr>
<tr>
<td></td>
<td>82,000 (laying hens)</td>
</tr>
<tr>
<td>Ducks (except liquid manure system)</td>
<td>30,000</td>
</tr>
<tr>
<td></td>
<td>5,000 (liquid manure system)</td>
</tr>
</tbody>
</table>
### Medium CAFOs Thresholds

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Medium CAFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Cows</td>
<td>200 - 699</td>
</tr>
<tr>
<td>Veal Calves</td>
<td>300 - 999</td>
</tr>
<tr>
<td>Beef Cattle</td>
<td>300 - 999</td>
</tr>
<tr>
<td>Other Cattle (e.g. Heifers)</td>
<td>300 - 999</td>
</tr>
<tr>
<td>Swine</td>
<td>750 - 2,499 (55 lbs or more)</td>
</tr>
<tr>
<td></td>
<td>3,000 - 9,999 (under 55 lbs)</td>
</tr>
<tr>
<td>Horses</td>
<td>150 - 499</td>
</tr>
<tr>
<td>Sheep or Lambs</td>
<td>3,000 - 9,999</td>
</tr>
<tr>
<td>Turkeys</td>
<td>16,500 - 54,999</td>
</tr>
<tr>
<td>Chickens, liquid manure</td>
<td>9,000 - 29,999</td>
</tr>
<tr>
<td>Chickens, other than a liquid manure system</td>
<td>37,500 - 124,999 (not laying hens)</td>
</tr>
<tr>
<td></td>
<td>25,000 - 81,999 (laying hens)</td>
</tr>
<tr>
<td>Ducks</td>
<td>10,000 – 29,999 (exc. liq. manure system)</td>
</tr>
<tr>
<td></td>
<td>1,500 – 4,999 (liquid manure system)</td>
</tr>
</tbody>
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Major Rule Elements

- All Large Operations Must Apply
  No potential to discharge determination

- Nutrient Management Plan Required
  Implement by December 2006
Nutrient Management Plan Elements

- Adequate storage
- Mortality management
- Divert clean water
- Prevent direct contact
- Proper chemical handling
- Site-specific conservation practices
- Manure/soil testing
- Land application
- Records and documentation
Major Rule Elements (cont.)

- New permitting thresholds for immature swine, heifer, and some poultry operations
- Eliminates “animal units” and mixed animal calculation
- Manure transfer record keeping
- Annual report
Annual Report Requirements

- Number/type of animals
- Amount of manure/wastewater generated
- Amount of manure/wastewater transferred
- Land application acres covered by nutrient management plan
- Land application acres used in previous 12 months
- Summary of production area discharges
- Indicate whether NMP was developed by certified planner
Major Rule Elements (cont.)

- Technical Standards developed by the Director for Nutrient Management
- Effluent Guideline Requirements
- Alternative Performance Standards
Effluent Guideline Requirements

- **Existing** Large Beef, Dairy, Swine, Veal Calf, Poultry, and **New** Beef and Dairy CAFOs
  - Production area BMPs and design requirements (No discharge except if storage for 25 yr/24hr event)
  - Land application area BMPs

- **New** Large Swine, Veal Calf, and Poultry CAFOs
  - Different production area design (No discharge based on 100yr/24hr event)
  - Land application area BMPs
Land Application BMPs

- ELG specifies best management practices
  - *Field specific assessment for N and P transport*
  - *Manure and soil sampling*
  - *Setback, vegetative buffer, or equivalent practices*
Alternative Performance Standards

- **Existing** Large Beef, Dairy, Swine, Veal Calf, Poultry, and **New** Beef and Dairy CAFOs
  - Equal to or less than the quantity of pollutants discharged from the production area under baseline

- **New** Swine, Poultry, and Veal CAFOs
  - Overall environmental performance of entire operation better than baseline
    - multimedia
    - land application areas
State Flexibility

- No potential to Discharge Determination
- Flexibility to address medium and small operations
- Permitting Approach
  - Individual, General, Watershed-based
- Alternative Performance Standards
- State Technical Standards and Nutrient Management
What is the implementation schedule?

- Effective date – April 14, 2003
- Production area requirements effective for existing large CAFOs – June 12, 2003
- State NPDES program revision – April 12, 2004; April 13, 2005 if statutory changes are required
- Nutrient Management Plans – 12/31/06 except new sources
# Implementation Schedule

<table>
<thead>
<tr>
<th>TYPE OF OPERATION</th>
<th>APPLICATION TIMES</th>
</tr>
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<tbody>
<tr>
<td>CAFOs defined prior to 4/14/03</td>
<td>Must have applied by dates specified in previous rule</td>
</tr>
<tr>
<td>CAFOs defined as of 4/14/03, and that were not defined as CAFOs prior to that date</td>
<td>As specified by the permitting authority, but no later than 2/13/06</td>
</tr>
<tr>
<td>CAFOs defined after 4/14/03, but which are not new sources</td>
<td>a) Newly constructed – 180 days prior to commencing operation</td>
</tr>
<tr>
<td></td>
<td>b) Other – no later than 90 days after meeting CAFO definition</td>
</tr>
<tr>
<td>New sources</td>
<td>180 days prior to commencing operation</td>
</tr>
<tr>
<td>Designated CAFOs</td>
<td>90 days after notice of designation</td>
</tr>
</tbody>
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Implementation Next Steps

- Comprehensive National Implementation Plan
- Continue to partner with USDA and State Ag Agencies
- Support state implementation plans
- Update State NPDES Programs
- Issue NPDES Permits
  - Nutrient Management Plans
  - Annual Reports
- Measures of success/assess environmental results
More information

- CAFO regulations and outreach materials: www.epa.gov/npdes/caforule
  www.epa.gov/ost/guide/CAFO/
- Compliance assistance: www.epa.gov/agriculture
- USDA programs: www.usda.gov
- EPA Office of Wastewater Management: (202) 564-0766