Spill Response Plans & General Reminders

2015 CAFO Meetings

Casey Jones / Mark Cain – DNR Agricultural Specialist
Presentation Overview

• Why does every farm need a spill response plan?
  – Land application spills or runoff
  – Production site spills

• General spill response plan content

• Plan improvements/recommendations

• CAFO Permit requirements for spill response plans, reporting, clean-up & post-spill remediation

• DNR staff roles in manure spills (spills, ag runoff, wardens)
Why Does Every Farm Need One?

• Be Prepared
  – Train staff
  – Have resources available

• Reduce water quality impacts
  – Groundwater
  – Surface waters

• Economic sense
  – Quicker response = less clean up time and costs
  – May get insurance policy deductions
  – May not result in citation or other monetary penalties from resource impacts that could have been prevented
E. Coli bacteria levels were extremely high at the discharge pipe. 235/100 ml is the current threshold for declaring an advisory for beaches and we close a beach at 1000/100 ml. Bacteria count upstream was 33/100 ml, at the discharge pipe was 198,630/100 ml, and downstream was 2420/100 ml.

Ammonia nitrogen can be considered toxic to aquatic life when levels exceed 0.4 mg/l. Ammonia was 0.0662 mg/l at the upstream site, 139 mg/l at the discharge pipe, and 2.28 mg/l at the downstream site. The ammonia levels at the discharge pipe and at the downstream site are considered highly toxic to aquatic life.
Spill Requirements

• Stop
• Contain
• Report
• Clean-up
• Restore
Typical Plan Contents

- Phone list
  - Farm Contacts
  - Manure Hauler
  - Septic Pumper
  - Excavation Company
  - DNR
  - Town Chairperson
  - County LCD
  - Digger’s Hotline
- Farm Address/Directions
- Steps for spill response
  - Eliminate Source
  - Contain / Recover
  - Contact appropriate agencies
  - Assess extent / Continue Clean-up
  - Make permanent repairs
Plan recommendations

• Site diagram of farm
• List more than one contractor for response / research their availability
• List detailed response procedures broken down by type of spill
• NMP maps should be readily available - important for land application area runoff/spills
Site diagram of farm

– Location of tile lines and storm water drains
  • Inlet and outlet locations
  • Underground tile line locations and type

– Location of underground utilities
  • Manure / waste transfer lines
  • Water lines
  • Gas and electric, etc.

– Location of concentrated flow channels with flow directions
  • Ditches
  • Streams

– Location of wells
List more than one contractor for response / research availability...

- Septic companies
- Manure applicators
- Pumping equipment
- Excavating equipment
- Environmental consultants
- Engineering consultants
- Source for clean water for flushing/jetting
- Plow/implement equipment

- 24 hour availability?
- Holidays & Weekends?
- Response time?
- Services provided?
Procedures for response / Caution during application

Use Caution when Applying Manure Near Critical Sites Which Include:

- wells
- channels
- ditches
- waterways
- streams
- rivers
- lakes
- ponds
- tile inlets
- broken tile lines
- sinkholes
- bedrock near surface

If manure is running off the field while surface applying, STOP! Work manure into the soil immediately.

Lagoon or slurry basin overflow responses.
- Add clay-type soil temporarily to the berm, increasing the elevation
- Pump manure and wastewater to fields at an acceptable rate.
- Stop all additional flow to the storage structure.
- Call a pumping contractor
- Prevent any surface water from entering the storage structure.

Runoff from manure application field responses.
- Immediately stop application.
- Create a temporary diversion or berm to contain manure on the field.
- Incorporate manure, reducing further runoff.
- Evaluate and eliminate the situation that caused the runoff.
- Evaluate the application rates for the fields where runoff occurred.
What Happens When a Spill is Reported to the 24 hour Spill Hotline?

- Hotline Staff take down details (scripted questions)
- Regional Spill Coordinator or On-Call Duty Officer is immediately contacted by the staff at hotline.
- Based on the information provided the person contacted assesses the information/situation and determines the need for additional response and/or DNR presence.
- A summary email is sent by hotline staff with the initial information collected during the call. That email is sent to a predetermined distribution list of people specific to the location and type of spill.
- Spills program sends a “Responsible Party” letter to farm owner advising them of responsibilities for clean-up.
Reporting Reminders

• Responsible Party (farm owner) should be the one to report the spill if possible
• If manure applicator reports spill, the farm name responsible for the manure must be named
• Don’t under report volumes or downplay impacts or risks of impacts to water quality
• Explain what measures have been taken and are planned to be taken
• It is beyond DNR staff’s scope to provide prescriptive clean up methods
DNR spill response roles

• Receive notification of reportable spills
• Respond as necessary to ensure appropriate action is taken to clean up
• Determine that remedial clean-up activities are sufficient (restored to previous state as much as practicable)
• Take enforcement when necessary
On scene presence

- DNR Wardens
- DNR Agricultural Runoff Staff
- DNR Spills Coordinator
- DNR Water Biologists
- County Land Conservation
- County Health
- Media
CAFO Permit Requirements

• Compliance Schedule Timeline
  – 30 days to develop response plan
  – Often in nutrient management plans

• Spill Reporting / Permit Noncompliance
  – 24 hour notification
    • Call Spills Hotline
    • Call DNR permit contact

• Written Report Deadlines
  – CAFO Permit states 5 days (this can be extended based on circumstance)
  – Spills program is 45 days after spill
  – Include photos in report

• Other
  – Plans should be updated regularly
  – Staff training is recommended and leads to quicker response to minimize or prevent impacts
5.2.3 Emergency Response Plans
Within 30 days of the effective date of the permit, the permittee shall develop a written emergency response plan, or update an existing plan if necessary, in accordance with s. NR 243.13(6). The plan shall be made available to the Department upon request. The emergency response plan shall be reviewed and, if appropriate or necessary, amended whenever the operation undergoes significant expansions or other changes that affect the volume or location of potential unauthorized spills or discharges. The plan shall be amended as needed to reflect changes in available equipment, available clean-up contractors or procedures to address unauthorized spills or discharges, or amended in accordance with comments provided by the department. The plan shall be retained at the production area and the permittee shall notify all employees involved in manure and process wastewater handling of the location of the plan.

5.1.11 Spill Reporting
The permittee shall notify the Department in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations or restrictions established in this permit, or the spill or accidental release of the material that is unregulated in this permit, unless the spill or release of pollutants has been reported to the Department in accordance with s. NR 205.07 (1)(s), Wis. Adm. Code, and the “Noncompliance - 24 Hour Reporting,” section of this permit.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources immediately of any discharge not authorized by the permit. The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR’s 24-hour HOTLINE at 1-800-943-0003.

5.1.15 Noncompliance - 24 Hour Reporting
The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. This includes any upset which exceeds any effluent limitation in the permit, or violations of the discharge limitations listed in the permit.
Where the clamp broke that caused manure to spray everywhere

New barricade installed view from inside

Manure flowing out of pump room to the east/south east

Pump room is to the west

Where slope starts that leads to culvert
Resources for developing a plan

- Consulting firms
- County Land Conservation Department templates
- DATCP template
- NRCS template
- Several examples online
- Look for DNR CAFO permittee template in 2015
Thank you for your attention

Any Questions?