Livestock Facility Siting Model Environmental Incident Response Plan

Why does a livestock facility need an environmental incident response plan?

According to Wis. Admin. Code § ATCP 51.30, in order to seek local approval of a new or expanding livestock facility, all of the information required by the application form in *Appendix A* of Wis. Admin. Code ch. ATCP 51 must be provided. One of the required elements is an environmental incident response plan. This response plan must include incident response procedures, including emergency response, recordkeeping, and reporting for, at a minimum, the following types of environmental incidents:

- Overflows and spills from waste storage facilities
- Catastrophic (waste storage) system failures
- Manure spills during transport and application
- Movement of manure (runoff events) during or after application
- Catastrophic animal mortality disposal event
- Odor complaints

Additionally, the response plan must identify the name and business telephone number of at least one individual who will handle public questions and concerns related to environmental incidents and the names and telephone numbers of first responders.

How should I use the model environmental incident response plan?

The attached model environmental incident response plan is provided as guidance and may be used as a starting point for developing your facility's environmental incident response plan. This model provides a framework to meet the requirements of the *Appendix A* application but must be modified to accurately represent your facility's operation. In addition to the six environmental incidents that must be covered by the plan, the model also includes procedures for Personal Injury/Fire Emergencies, Accidental Entries to Manure Storage or Transfer Facilities, and Hazardous Material Spills. These additional incidents are not required to be included in an environmental incident response plan but may benefit a facility and the safety of its employees.

Example Farm
Environmental Incident Response Plan

Example Farm Information and Contact

Facility Address: _____

(include satellite facilities) _____

Facility Manager: _____

Manager Phone: _____

Secondary Phone: _____

Directions to facility from nearest state highway (include satellite facilities): _____

_____

_____

_____

The above directions may be useful in directing emergency services to the facility during an emergency.

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Emergency Contacts List

Contact Type	Contact Person or Entity	Phone Number
Emergency Services		911
Non-Emergency Fire/Rescue		
Non-Emergency Police		
Facility Veterinarian		
On-Farm Equipment Operation		
Manure Hauling		
Utility Locate	Digger's Hotline	811
Excavation Equipment		
Pumping Equipment		
Mortality Disposal/Rendering		
Hazardous Spill Reporting	DNR Hazardous Spill Hotline	1-800-943-0003
DNR Regional Nonpoint Coordinator		
Local DNR Conservation Warden		
Local DNR Wastewater (CAFO) Specialist		
County Conservation Dept.		
County Highway Dept.		
County Health Dept.		
Town Chairman		

Incident Response Procedures

Waste Storage Overflows and Spills

Response Information

WI DNR Livestock Contamination Reporting and Response

Response Actions [Add other information as it relates to the operation]

1. Stop all additional flow to the storage structure (waterers, flush system, etc). Prevent surface water from entering the system.
2. Contact the facility manager.
3. Notify DNR spill hotline.
4. Assess the situation and contact county land conservation department and DNR regional nonpoint coordinator or DNR CAFO specialist for technical assistance in responding to the incident.
5. Begin clean-up. Call on-farm equipment operator and/or excavator*.
    a. Utilize the nearest soil source on the farm for fill.
    b. Construct temporary manure containment dikes as required to contain the spill.
6. Construct a temporary dike below the manure storage from earth fill, corn silage, or other available materials if manure is flowing toward a defined waterway or drainage outlet.
7. Attempt to place temporary fill in the area of failure.
8. Call manure hauler and pumping equipment operator to bring agitation pump and tanker.
9. Place agitation pump in pit at designated pumping location as soon as possible and begin loading tankers.
10. Collect manure and contaminated soil from overflow area and from behind temporary dike. Land apply materials on fields approved for manure application in the nutrient management plan. Apply at the established rates. Remove temporary dike from the field and temporary fill from the manure storage facility berm.
11. Conduct engineering analysis of manure storage facility and develop repair plan. Obtain necessary approval for repair plan.
12. Repair manure storage facility, if necessary**.
13. Document actions on Incident Record Worksheet.
14. Follow up with the county land conservation department to discuss any repairs or reconstructive efforts required to safely reengage the waste transfer and storage systems.

**Always contact Digger's Hotline before excavation to locate nearby utilities.*

***Contact your county land conservation department to discuss proper repair of the facility. An engineer may be needed to develop a plan to repair the facility, and verify repairs are adequate. Permits may be required depending on the extent of repair needed.*

Catastrophic Waste Storage System Failures

Response Information

WI DNR Livestock Contamination Reporting and Response

Response Actions [Add other information as it relates to the operation]

1. Stop all additional flow to the storage facilities (waterers, flush system, etc). Prevent surface water from entering the system.
2. Contact the facility manager.
3. Notify DNR spill hotline.
4. Assess the situation and contact county land conservation department and DNR regional nonpoint coordinator or DNR CAFO specialist for technical assistance in responding to the incident.
5. Begin clean-up. Call on-farm equipment operator and/or excavator*, if needed.
    a. Utilize the nearest soil source on the farm for fill.
    b. Construct temporary manure containment dikes as required to contain the spill.
6. Construct a temporary dike below the manure storage from earth fill, corn silage, or other available materials if manure is flowing toward a defined waterway or drainage outlet.
7. Attempt to place temporary fill in the area of failure.
8. Call manure hauler and pumping equipment operator to bring agitation pump and tanker.
9. Place agitation pump in pit at designated pumping location as soon as possible and begin loading tankers.
10. Collect manure and contaminated soil from overflow area and from behind temporary dike.
11. Land apply materials on fields approved for manure application in the nutrient management plan. Apply at the established rates. Remove temporary dike from the field and temporary fill from the manure storage facility berm.
12. Conduct engineering analysis of manure storage facility and develop repair plan. Obtain necessary approval for repair plan.
13. Repair manure storage facility**.
14. Document actions on Incident Record Worksheet.

Manure Storage Leakage

Leakage from base or sidewall of a manure storage structure are often slower than flowing leaks. Responses are as follows:

- Dig a small hole or ditch to catch all leakage, put in a submersible pump, and pump back into lagoon.
- If holes are caused by burrowing animals, trap or remove animals and repair the hole to maintain applicable structural standards.
- Other holes may be temporarily plugged to maintain applicable structural standards.

**Always contact Digger's Hotline before excavation to locate nearby utilities.*

***Contact your county land conservation department to discuss proper repair of the facility. An engineer may be needed to develop a plan to repair the facility, and verify repairs are adequate. Permits may be required depending on the extent of repair needed.*

Manure Spills During Transfer or Application

Response Information

WI DNR Livestock Contamination Reporting and Response

Response Actions [Add other information as it relates to the operation]

1. Identify and stop the source of the spill.
    a. Stop manure application and pumps.
    b. Close valves and separate pipes, creating an air gap and stopping flow.
    c. Transfer manure/liquid to other storage.
2. Contact the facility manager and manure hauler if necessary.
3. Notify DNR spill hotline.
4. Notify the county land conservation department, DNR regional nonpoint coordinator, or DNR CAFO specialist, and call the county highway department, town chairman, or non-emergency police line if traffic control is needed.
5. Contain the spill, if possible. Contact on-farm equipment operator and/or excavator*.
    a. Create a containment dam.
    b. In a field, use tillage equipment to slow the flow.
    c. Check for tile flows. Place temporary soil plugs in tile outlets if manure is detected in system.
    d. Construct a temporary holding basin down slope.
    e. If possible, place soil over the point of seepage, ensuring that you do not drive over or compact the seepage point.
6. Assess the extent of the spill and note any obvious damages.
    a. Did or could the spill reach any surface waters, well casings or other sensitive areas? If yes, contact the DNR spill hotline.
    b. How much was released? What time?
7. Assist with securing the spill area to avoid contact with humans, livestock, or traffic. Safely position high visibility precautionary equipment or vehicles to divert traffic around the hazard area until cleanup operations are completed.
8. Clean up the spill and make repairs to equipment. Did any damage occur (employee injury, fish kills, or property damage)?
9. Land apply collected manure and contaminated soil on fields approved for manure application in the nutrient management plan. Apply at the established rates.
10. Document actions on Incident Record Worksheet.

**Always contact Digger's Hotline before excavation to locate utilities that may be buried.*

Manure Runoff Events During or After Application

Response Information

WI DNR Livestock Contamination Reporting and Response

Response Actions [Add other information as it relates to the operation]

1. Stop land applying manure.
2. Contact the facility manager.
3. Notify the county land conservation department.
4. Assess the extent of the runoff and refer to above steps for a spill, if necessary.
    a. Did or could the runoff reach any surface waters, well casings, or other sensitive areas? If yes, contact the DNR spill hotline.
5. Refer to the online Runoff Risk Advisory Forecast Tool (http://www.manureadvisorysystem.wi.gov/runoffrisk/index) to determine continued or increased risk of runoff events.
6. Contact on-farm equipment operator and, if possible, incorporate manure with tillage or till ground down slope of applied manure to reduce runoff.
7. Contact excavator* and construct a temporary berm to prevent runoff of manure, if necessary.
8. Evaluate the application rates for fields where runoff occurred. Recalibrate spreader if necessary.
9. Document actions on Incident Record Worksheet.

**Always contact Digger's Hotline before excavation to locate utilities that may be buried.*

Catastrophic Animal Mortality Management

Response Information

- DATCP Division of Animal Health – Animal Diseases webpage
- USDA Foreign Animal Disease Preparedness and Response Plan
- APHIS Carcass Management Resources
- USDA Guidelines for Emergency Use of Above Ground Burial to Manage Catastrophic Livestock Mortality
- Secure Beef Supply Plan
- Secure Milk Supply Plan
- Secure Pork Supply Plan
- Secure Poultry Supply Plan
- Secure Sheep and Wool Supply Plan
- WI DNR Agricultural Runoff Management Staff

Disposal Methods and Locations [Use the information above to determine your facility's disposal methods and locations before a catastrophic animal mortality incident occurs]

Consult with DNR regional nonpoint coordinator or DNR CAFO specialist for environmental concerns or permits required for disposal methods and locations, and with county health department for other local ordinances or regulations.

- Methods:
  - Determine which disposal method(s) can be used and list them here; burial, indoor and/ or outdoor composting, landfills, rendering, incineration, etc. Identify which method(s) are seasonally specific.
  - Consider available resources, capabilities, and experience of equipment operators, as well as cost, environmental concerns, time requirements, and any community concerns. Use the APHIS Carcass Management Calculator to help calculate costs.
- Locations:
  - Determine and mark planned mortality storage/staging areas and disposal locations on the site map and list them here.
  - Determine areas needed to stage other equipment and resources on the site map and list them here.
  - Consider time and distance to move and stage materials, access to disposal areas, space requirements, biosecurity, and required cleaning and disinfection.

Response Actions [Add other information as it relates to the operation]

1. Contact facility veterinarian.
2. Assemble inventory of animals and other materials on site for disposal (i.e. feed, manure, etc.)
3. Remove mortalities from the livestock production area. Place in designated mortality storage area, if applicable (secure from scavengers and having appropriate runoff controls).
4. If applicable, contact mortality disposal/rendering contractor to arrange pick up within 24 hours.
5. If directed by an order of quarantine, implement enhanced biosecurity and other measures.
6. Dispose of mortalities using the designated methods and locations above.
7. Document actions on Incident Record Worksheet.

Odor Complaints

Response Information

Information Type	Location
Odor monitoring worksheet	Office

Response Actions [Add other information as it relates to the operation]

1. After a complaint is placed, fill out the odor monitoring worksheet. Insert as much detail as possible.
2. Review the facility's approved odor control practices to ensure they are being maintained.
    a. See Example Farm Odor Management Plan, if applicable.
3. Consider additional steps to maintain working relationship with affected neighbors.
    a. Provide notice to neighbors prior to land application of manure.
    b. Avoid spreading manure during holidays and community events.
    c. Clean roads if operations have deposited manure or mud.
    d. Engage in community outreach such as attending 4-H, dairy days, or school events, or hosting a community event and open house.
4. Keep a record of complaints received and evaluate the effectiveness of odor control technologies and management.

Odor Monitoring Worksheet

Date compliant received: Time: Form completed by:

Complaint received from:

Address:

Phone Number:

Details of complaint:

Weather Conditions:

Sunny Partly cloudy Mostly cloudy Overcast Hazy

Temperature: Relative humidity:

Precipitation:

None Fog Rain Sleet Snow

Wind direction, blowing from:

N

NW NE

W E

SW SE

S

Wind speed:

Calm

Light Breeze

Moderate Wind

Strong Wind

Odor Source:

Description of any changes to normal operation:

Actions taken to reduce conflict:

Personal Injury/Fire Emergency

Response Information

Information Type	Location
First aid equipment	Office
Fire suppression equipment	Office and vehicles
Hazardous/flammable materials list on farm	Office

Response Actions [Add other information as it relates to the operation]

1. Determine nature of emergency and type of assistance required.
    a. Call 911 if emergency services are necessary.
2. Attempt to stabilize injured person without moving, unless necessary and safe to do so.
3. Start CPR if appropriate.
4. Implement evacuation of people and livestock if appropriate.
5. Identify potential locations of hazardous or flammable materials and notify emergency personnel when they arrive.
6. Document actions on Incident Record Worksheet.

Accidental Entry to Manure Storage or Transfer Facilities

Response Information

Information Type	Location
First aid equipment	Office
Rescue equipment (grab pole, ladder, rope)	Office

Response Actions [Add other information as it relates to the operation]

1. Determine assistance needed and call 911 if necessary.
2. Shut off all equipment in, or running into, the storage or transfer facility.
3. Locate emergency rescue equipment (grab pole, ladder, and flotation device) and attempt to reach victim. DO NOT enter a confined area where manure gases could accumulate without an appropriate respirator.
4. Apply first aid as necessary.
5. Document actions on Incident Record Worksheet.

Hazardous Material Spill

Response Information

Information Type	Location
First aid equipment	Office
Fire suppression equipment	Office and vehicles
Personal protection equipment (PPE)	Office
Hazardous/flammable materials on farm list	Office

What is a spill? | Wisconsin DNR

WI DNR Immediate Reporting Required for Hazardous Substance Spills

Response Actions [Add other information as it relates to the operation]

1. Identify the hazardous material that has been spilled. Assess need for PPE.
2. Stop the source. Turn off pumps and any related equipment.
3. Assess the situation and make appropriate calls for assistance or reporting.
    a. Call 911 if there is immediate harm or danger.
    b. Call non-emergency fire/rescue if appropriate.
    c. Call DNR spill hotline if the spill is reportable.
4. Flammable materials: Shut off power to area from a remote location. Eliminate sources of ignition.
5. Evacuate people and livestock as appropriate.
6. Contain the spill and begin cleanup.
7. Prevent hazardous materials from leaving spill site by construction temporary dikes if necessary.
8. Once the situation has been stabilized, collect hazardous material using approved methods and dispose of contaminated soil according to regulations.
9. Document actions on Incident Record Worksheet.

Site Map

Environmental Incident Record Worksheet

Incident Date:

Incident Time:

Location of Incident:

Contacts and Agencies Involved:

Explanation of Incident:

Worksheet Completed By:

Signature:

Date Completed: