



Environmental Emergencies and Spill Response

5 steps to minimize negative impacts on the environment:

1. Assure human safety!
2. Stop the flow at the source.
3. Contain and control existing spill.
4. Notify the proper authorities.
5. Clean up the spill.

Emergency Response Plan

Developed for _____ Farm

If an emergency manure spill or leak should occur you need to take the following actions:

- 1) **Ensure you and other people are safe.** If the spill or leak involves a public road:
 - a. Contact police for traffic control
 - Use flares, safety cones, etc. to warn approaching motorists
 - b. _____ **Police Department @** _____
- 2) **Stop the leak or spill**
 - a. If the leak or spill happens while **emptying the storage**:
 - Stop pumps, close valves, and/or stop siphoning of manure
 - Park on top of flexible piping to pinch it closed
 - If necessary, direct manure to another storage structure
 - Plug holes in the impoundment, build dams to capture the leak and either pump the manure back into storage or spread it on fields
 - b. If the leak or spill happens while **on the road**:
 - Pull off the side of the road
 - Plug the leak or otherwise stop the flow of manure from the tank
 - Build a berm or dike to keep manure from flowing into streams, ditch, etc.
 - Call the police to direct traffic
- 3) **Contain and control the leak or spill:**
 - a. Build containment dam to capture the manure. Use soil, gravel, hay bales, etc. Provide an area for the impounded manure to run into and be temporarily stored. Limit the area in contact with the manure. Use a contractor if necessary. Some local contractors or others with equipment in the area are:
 - Contractor _____ @ _____
 - Contractor _____ @ _____
 - b. Prevent manure from running into streams, ditches, etc.
 - c. Use absorbent material to soak up the manure, such as straw, hay, sawdust, animal feed, or soil to limit or stop the flow
 - d. Check for contaminated subsurface tile lines and divert flow from tile inlets
- 4) **Notify the proper authorities:**
 - a. _____ or _____ **Pa DEP, Emergency Response number @** _____
http://www.portal.state.pa.us/portal/server.pt/community/report_an_incident/6010
 - b. _____ **County Conservation District @** _____
 - c. _____ **PA Fish and Boat Commission @** _____
 - d. _____ **Your nutrient management planner @** _____
- 5) **Clean up the leak or spill:**
 - a. This may be directed by the authorities listed above.
 - b. Pick up absorbent material you used and properly dispose of the material
 - c. Restore the damaged area if necessary.

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An Emergency Response Plan is required as part of a PA Nutrient Management Plan or PA Manure Management Plan. Use the link below to find this guidance document.
<https://extension.psu.edu/programs/nutrient-management/planning-resources/alternative-tech-manual/spreadsheets-and-forms/emergency-response-plan/view>

Always Remember These Key Safety Takeaways When Working:

- Prevention is always best! Develop standard procedures so all workers conduct routine equipment inspections and safe operating practices.
- NEVER enter manure storage structures or tanks or spreaders due to the presence of dangerous levels of manure gases.
- Use the buddy system, especially when a task involves dangerous gases.
- Ensure your personal protective equipment (PPE) is adequate and up to date.
- Be sure all family members and employees have the proper training for handling manure spills.
- Double- and triple-check your surroundings and potential hazards every time.

<https://www.agriculture.com/manure-pit-accidents-are-more-deadly-than-7853529>



Well meaning, but not properly protected, family or coworkers can unintentionally make a situation more tragic.

<https://www.businessinsider.com/three-brothers-ohio-farm-died-after-passing-out-manure-pit-2021-8>



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MANURE SPILLS RESPONSE in Pennsylvania





Credit: Summit Station Fire Company

What defines a manure spill?

It can be considered any manure nutrient application above an agronomic rate. The PA Clean Streams Law is used for guidance. Occurrence is often triggered from a weather event. **PA generally considers these scenarios:**

- Accidental spill or release
- Intentional release
- Over-application on fields
- Overflow of freeboard without a storm event
- Overflow of freeboard without a large storm event could be considered negligent management

1. Assure Human Safety.

- Never enter a confined space.
- If a spill occurs on a road, immediately call safety authorities such as police and firemen to aid in slowing/redirecting traffic. Dial 911 from a mobile phone to do this.
- Broken down equipment, people, and manure on road surfaces or roadsides increase the risk of further accidents with passing motorists.
- Use flares, reflective safety triangles, or traffic cones to warn and slow motorists. Carry emergency equipment in your vehicles.

2. Stop The Flow At The Source.

- Stop manure application or pumps.
- Close valves. Shut off power.
- Separate pipes to create an air gap to stop flow due to siphoning.
- Redirect manure to another storage or temporary container.
- Plug holes. Build dams.
- Park on top of flexible piping to pinch it closed.

3. Contain And Control Existing Spill. Limit The Impact Area.

- Build containment dam or temporary holding basin down slope from the release (2 dams are recommended). Use soil, sand or hay bales. Call an excavator if needed. Pump manure out of the containment. Vacuum pumps may be needed.
- Block culvert pipes.
- Divert flow from tile inlets and wellheads. Shovel soil around above-ground water inlets so manure flows around and not into the piping.
- Use absorbent material such as straw, hay, sawdust, or soil to limit or halt flow.
- Till across the slope to slow flow and allow penetration into soil.

4. Notify The Proper Authorities.

- Do not avoid this step. Attempting to hide an accident can make things worse in the long run.
- For spills on roads call 911 who will contact local help for safety, and clean up processes.
- Contact PennDOT or the municipality when manure impacts the roadways. Contact PA Dept of Environmental Protection (DEP) when the manure impacts waters of the Commonwealth. DEP's statewide emergency response number is 1-800-541-2050.
- Document details of the incident and response actions taken. Place this on file to protect you from future legal actions.
- Take photos – a picture tells a thousand words, and can protect you from accusations that are not true.
- Many farms and manure hauling companies have Emergency Action Plans that provide a protocol for reporting spills. For CAOs and CAFOs, an Emergency Action Plan is required, and can be found with a farm's Nutrient Management Plan.



Manure hose rupture when the line is charged with pressurized air during line cleanout.

5. Clean Up The Spill.

- If the spill occurred on a roadway or entered a stream, authorities may need to direct clean up efforts.
- Collect spilled manure and absorbent material. Land apply the material, or place in a manure storage.
- If the spill occurred in an environmentally sensitive area, it may be necessary to remove soil from the area.
- Restore the damaged area. Vegetation may need restoration also.

PA DEP's statewide emergency response number is 1-800-541-2050.

Report emergency regardless of time of day or where the incident is located.