



Livestock Truck and Trailer Washouts

Office of Program Support

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This fact sheet identifies environmental and biosecurity best management practices for livestock truck and trailer washout locations and it is developed in partnership with the Indiana State Board of Animal Health.

Background

- Washing and cleaning out livestock trucks and trailers is a necessary practice to maintain cleanliness and to ensure the biosecurity integrity of livestock equipment.

What is a livestock truck and trailer washout and why are they needed?

- A livestock truck and trailer washout (truck-wash facility) is an operation that cleans and disinfects trucks and trailers for livestock transporters between livestock deliveries. Manure and bedding are removed from the trailers using water, soap, and other mechanical methods.

Who is engaged in this activity?

- Truck-wash facility operators offer transporters a way to manage livestock waste as well as reduce the risk of disease transmission between deliveries. While both types are very water-intensive, not all truck-wash facilities are the same.
- Most truck-wash facilities fall into two general types:
 - The first type of truck-wash facility is designed like a car wash, where the wastewater is captured in a holding tank and hauled off site to a wastewater treatment plant (WWTP), or the wastewater is discharged to a sewer system connected to a WWTP or is directly discharged to the water of the State. If wastewater is collected from a holding tank and hauled to a WWTP, the operation is regulated by IDEM and Indiana Department of Health (IDOH). WWTPs that receive wastewater from external sources are required to inform the IDEM's Office of Water Quality (OWQ) Permits Branch of their intent to accept wastewater (including truck-wash facilities' wastewater). The IDOH communicates with local health departments for issuing installation and operation permits for holding tanks. The wastewater that is discharged to sewers for treatment and is discharged at a Publicly Owned Treatment Works (POTW) would be regulated by IDEM if the wastewater is going to a POTW located in a nondelegated pretreatment community or a POTW without any type of pretreatment program. If the truck-wash facility is designed to discharge the wastewater directly into a water of the State, it would be regulated also by IDEM's OWQ. Truck-wash facilities are required to obtain the permit from POTW or IDEM prior to the wastewater being discharged to WWTP or directly to the water of the State. It can take several months to issue these permits.
 - The second type of truck-wash facility is designed to operate within a farm operation. Wastewater and solids from the truck-wash facility are directed to and held in a lagoon until the waste can be land-applied to a cover crop on site. For the purpose of this fact sheet, there are three types of farming operations:
 - 1) Confined Feeding Operations (CFO)/Concentrated Animal Feeding Operation (CAFO) with a truck-wash facility—these facilities will be required to include the truck-wash facility in their IDEM CFO permit and would need prior approval before the facility is constructed.
 - 2) Animal Feeding Operations (AFO), which are livestock operations with fewer animals than a CFO or CAFO under state law -- these facilities do not require a CFO or CAFO permit for their truck wash facilities unless they intend to discharge directly to a water of the State. These sites are allowed to land apply the collected wash facility waste under the Office of Indiana State Chemist (OISC) regulations.

- 3) A farm without animals with a truck-wash facility—these facilities do require a NPDES permit from OWQ prior to discharge, if intended to discharge to waters of the State. If intending to land apply wastewater without soaps or disinfectants, a permit from IDEM will not be needed, but the land application is subject to regulation under the OISC.

What are the environmental impacts?

- Truck-wash facility washouts generate wastewater. Wastewater from truck-wash facilities contains animal waste and bedding material that must be properly managed. If left unmanaged, the discharged water from these operations could impact water quality in the state of Indiana.

What are the biosecurity and impacts?

- Since pathogens can survive in dirty trailers and equipment for an extended period, proper cleaning, disinfection, and drying are critical for the prevention of pathogen spread.

Environmental best management practices

- Park trucks and trailers on a slight slope to allow washout water to flow into a sanitary sewer, holding tank or into a lagoon system.
- If using detergents and disinfectants, washout water should be directed to a sanitary sewer or holding tank.
- When possible, manage and collect wash water during the truck-wash facility's process to prevent runoff from the truck wash area.
- Manage all manure in a manner that helps to prevent nuisance conditions, such as odors and flies.
- The OISC requires any person applying, transporting, or hauling manure from a permitted CFO/CAFO to be licensed and certified by OISC as a Category 14 applicator. In addition, any facility that generates more than 10 cubic yards, or 4,000 gallons per year is required to land apply according to 355 IAC 8: Fertilizer Material Use, Distribution and Record Keeping Regulations.
- When land applying the manure, maximize the benefit of the manure as a crop nutrient. The application of the effluent should be done while considering weather conditions and the proximity to water bodies. CFO/CAFO operators need to be mindful that effluent disposal must adhere to the operation's approved manure management plan.
- Do not use manure application as a waste disposal method. The manure application must be based on a consideration of soil fertility levels, crop need and availability of nutrients from manure.
- Do not irrigate or land-apply when the ground is frozen, snow-covered, saturated, or during rain events. Land application is best when the field has a crop residue or ground cover that will aid in the nutrient uptake of the soil.
- Check with IDEM's Compliance and Technical Assistance Program (CTAP) to ensure compliance with IDEM and local regulations.

Biosecurity best management practices

- Trucks and trailers must be thoroughly cleaned, washed, disinfected, and completely dried after being used and before being loaded again. Before entering a truck-wash facility, understand the traffic flow for entry and exit of clean and dirty vehicles and only pull into a wash bay that is clean.

Clean out

- Remove any trash, dirty boots, and used coveralls from the truck cab and place in designated locations (e.g., recycle bin, garbage, or laundry).
- Clean all surfaces by removing any visible debris. All manure and bedding cleaned from a trailer may contain pathogens that could cause disease. Dispose of these in a way that will prevent spread to other trailers or locations.

Wash

- Any use of soaps or degreasers should be applied according to label directions. IDEM recommends using phosphate-free and biodegradable soaps in the lowest quantity necessary. Apply to all interior surfaces of

livestock space first, working from the floor up. Then, apply soap to the exterior of the trailer and the truck. Do not let the detergent dry on any surface.

- Pressure washing should then occur in reverse, working from the top down and spraying the exterior of trailer and truck first, then the trailer interior, including any winter panels, ramps, gates, crowd boards, brooms, shovels, and dirty and clean boxes.
- Be aware of the source of water used for cleaning. Recycled wash water may still contain pathogens that could cause disease, so disinfecting and adequate drying are especially important.
- Use high pressure and hot water to improve the washout.

Disinfect

- Disinfectants should be used on trucks and trailers after they have been cleaned and washed because organic materials will reduce the effectiveness of most disinfectants.
- Disinfectants must be chemically compatible with any detergent or wash soap that is being used. Failure to select and use disinfectants properly will decrease their effectiveness in disease prevention and can pose a risk to human health.
- Follow label directions when using disinfectants to ensure the disinfectant is being used at the proper concentration, temperature, and the appropriate contact times are being observed.
- Apply disinfectant to all exterior surfaces and then apply to interior surfaces of the cargo area including any winter panels, ramps, gates, crowd boards, brooms, shovels and dirty and clean boxes.
- When disinfecting the truck cab, pay close attention to floorboards and pedals.

Dry

- Trailers should be completely dried before next use as drying supports the inactivation of disease agents.
- Use heat or fans to assist in drying the trailers or allow sufficient drive time to help in drying process.

Additional resources:

- IDEM Emergency Response: idem.IN.gov/cleanups/investigation-and-cleanup-programs/emergency-response/
- IDEM Compliance and Technical Assistance Program (CTAP): idem.IN.gov/ctap/
- Indiana State Department of Agriculture: isda.IN.gov/contact-us/
- Office of Indiana State Chemist: oisc.purdue.edu/
- Indiana State Board of Animal Health: boah.IN.gov
- National Pork Board Transport Quality Assurance Handbook: porkcdn.com/sites/all/files/documents/TQA/V7.0/TQA_v7_HandbookEnglish.pdf (for example trailer cleaning protocol)