Dairy product cleanup and disposal requirements

Emergency Response Program

The purpose of this document is to describe the reporting and cleanup requirements for milk and/or dairy products released to the environment.

Reporting spill and releases

Immediately report spills and releases to the Minnesota Duty Officer upon discovery at 651-649-5451 or 800-422-0798. Under Minn. Stat §115.061, people are required to report and recover any substance or material under their control which, if not recovered, may cause pollution of the waters of the state. The person in control of the material at the time of the spill must recover spills as rapidly and thoroughly as possible and take immediately such other action to minimize or abate pollution of waters of the state.

The Minnesota Department of Public Safety operates a 24-hour duty officer program for all state reporting requirements. The duty officer records all pertinent information about the release and then makes the appropriate notifications to state agencies or departments.

Who is responsible for reporting a spill or release?

Individuals, partnerships, governmental organizations, or companies with "any substance or material under its control" must report spills and leaks, including:

- Property owners who discover contamination;
- Owners and/or operators of substances being stored or transported; and
- Contractors in physical control of a discharged substance.

Even if a fire or police department or other emergency responder reports your spill, you are still required to report a release of a substance or material under your control. Local ordinances or state and federal law may impose additional reporting requirements.

What are dairy products?

Dairy products include milk, cream, butter, yogurt, and cheese and other products made from, or containing milk. In addition, dairy waste products that have become unfit for consumption by humans and/or animals due to contamination or other mechanisms which render the products unusable are dairy products.

Environmental impacts

Spills and/or releases of milk and other dairy products can have a negative effect on both animal and vegetative health in the affected area and can cause nuisance odor problems. When spilled into a waterway, milk and other dairy products degrade and lower the dissolved oxygen in the water which can kill fish and other aquatic organisms.

Cleanup requirements

The Emergency Response Program (ERP) requires full recovery of recent spills. For soil, excavate and remove all visibly discolored contaminated material and/or material that has odors. It is the policy of the Minnesota Pollution Control Agency (MPCA) that underground waters of the state be maintained at their natural quality.

Therefore, the groundwater must be cleaned up thoroughly (nondegradation). For surface waters, the cleanup to background may be challenging and the goal is to ensure absence of any spilled material, discoloration, and/or odor. Aeration of surface waters may be necessary using bubblers and pumps. The following water quality field and/or lab measurements are required of the affected surface water to assess impacts and effectiveness of response actions: temperature, pH, specific conductance, suspended solids, turbidity, chloride, sulfate, 5-day biochemical oxygen demand (BOD5), dissolved oxygen, and E. coli bacteria. Additionally, visual observations of plume, discoloration of waters, and odor is required.

If full recovery of a spill and/or release is not possible because of physical impediments, limits of technology, or if a newly reported historic spill has spread beyond practical limits for full recovery, risk-based cleanup decisions will be implemented based on professional judgment and approval of MPCA staff.

Response strategies and disposal options

The following are typical expected response strategies and disposal options. More than one technique may be used to effectively remedy the spill.

- Aggressive aeration of the affected surface water.
- Flushing of the affected surface water to dilute impacts.
- Direct pumping and land application of the affected surface water.
- Discharge of recovered liquid wastes to a publicly owned wastewater treatment plant.
- Excavation and land application of contaminated soil.
- Disposal of excavated contaminated soils and waste dairy products at a permitted landfill.

These options may require approvals from the Minnesota Department of Natural Resources, a landowner, or wastewater plant operator. During a cleanup, document your actions and prepare a cleanup report for submittal when complete.

Additional information:

MPCA Emergency Response Program

https://www.pca.state.mn.us/about-mpca/emergency-response

MPCA Emergency Responder Response Areas and Contact Information
https://www.pca.state.mn.us/sites/default/files/c-er1-13.pdf

MPCA Emergency Response Program Spill Cleanup Policy
https://www.pca.state.mn.us/sites/default/files/c-er4-13.pdf

Land Application of Industrial By-Products
https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products

Guidelines for Managing Industrial By-Products from Food, Beverage, and Agro-Industrial Processing Facilities
https://www.pca.state.mn.us/sites/default/files/wq-lndapp2-03.pdf