



Minnesota
Pollution
Control
Agency

Industrial By-Product Transfer to Manure Storage

Water Quality/Land Application #1.05 • January 2010

This information sheet contains the Minnesota Pollution Control Agency's (MPCA) policy for transfer of small quantities of food or beverage processing by-products to manure storage structures. Use of manure storage structures for these by-products requires written MPCA approval prior to transfer to the manure storage structure. When this policy is used, the resulting mixture of materials land applied will be managed as manure and subject to the requirements for manure management. Proposals outside of this policy will be reviewed on a case by case basis and may require an MPCA permit. It is important to note that local units of government may have their own requirements for transfers of industrial by-products (IBP) to manure storage structures.

Feedlot facility and manure storage structure minimum standards

- The feedlot must have a valid permit or certificate of compliance which identifies the manure storage structure.
- Biological treatment lagoons cannot be used.

The feedlot must be in compliance with MPCA feedlot and manure management requirements and have no unresolved compliance issues. The feedlot must provide a minimum of nine months of storage capacity for combined manure and IBP additions if the feedlot is defined as a Concentrated Animal Feeding Operation.

Minimum management requirements

- A minimum of three feet of freeboard is required for any storage structure that is exposed to the weather and/or collects runoff from an open lot exposed to the weather. The maximum quantity of IBP that can be added to a single storage structure is 50,000 gallons or up to ten percent of the available structure volume, whichever is greater (total of all IBP transferred to the same storage structure), is allowed to be transferred to each approved manure storage structure during each six month period of the respective cropping year (winter period, summer/cropping period). A second transfer to the manure storage structure during a cropping year, if applicable, is also subject to a maximum of 50,000 gallons, or up to ten percent of the available volume of the structure, whichever is greater.
- Food processing by-products must be compatible with the structure and manure to prevent damage to the structure and changes in biological activity. Examples of problems associated with incompatible wastes are damage to concrete and soil liners, physical or chemical changes in the mixture which make it difficult to agitate or pump, cause odors, etc. Contact the MPCA for assistance with compatibility questions.

- Sampling and analysis of the mixture must occur prior to land application to determine allowable application rates.
- Land application must follow all requirements for manure application rates and management per Minn. R. ch. 7020.
- Records must be maintained detailing waste type, transfers of IBP in and out, waste generator, and quantities.
- The feedlot's Manure Management Plan must address operations related to IBP/manure storage, transfer, sampling and application. All parties with manure or IBP present in the storage structure are responsible for the proper management of the material.
- The total quantity of the food processing by-product transferred into and out of the manure structure and a copy of analysis results must be submitted to MPCA by the industry annually by January 31 as part of the IBP annual report.

Approval procedure

- An "Industrial By-Product Transfer to Manure Storage" application form is submitted **by the Permittee** to the appropriate county or MPCA feedlot official notifying them of the industry's intent to transfer IBP to the manure storage structure.
- County feedlot official completes and signs applicable portions of the form in delegated counties, or appropriate MPCA feedlot staff member in non-delegated counties.
- Copy of the signed form is submitted to the township or city where the structure is located, and the MPCA.
- The MPCA notifies the appropriate regional MPCA feedlot staff.
- Written approval is sent to the Permittee by the MPCA, if no problems are identified during this process.

Other

For previously approved manure storage structures, the "Industrial By-Product Transfer to Manure Storage" application form is required to be re-submitted and approved for an increase from 50,000 gallons to ten percent of the storage structure, if the previous approval was for 50,000 gallons.