



Department of the Environment

Options for the Management of Food Processing Wastewater

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Wastewater Permits Program





What is Food Processing Wastewater?

Food processing wastewater is any wastewater generated from food processing activities such as:

- Beer and wine making
- Milk products processing such as ice cream, cheese, or yogurt
- Large scale produce washing
- *On-Farm*, 'small scale' poultry and rabbit processing

Food processing wastewater is considered industrial wastewater.

Since MDE makes a distinction between domestic wastewater and industrial wastewater, MDE regulates the onsite disposal of food processing wastewater.

First Step – Contact MDE to discuss wastewater management options





Onsite Food Processing Wastewater Management Options

- Option 1: Holding Tank
- Option 2: Land Application of Wastewater
- Option 3: Subsurface Disposal



Option 1:

Holding Tanks

**Collect and Contain
Wastewater for Transport
for Offsite Treatment**



Holding Tank Requirements

Option 1: Holding Tanks

- 7 days of storage
- Design approval required from MDE
- High-water alarm installation
- Water-tightness test before use
- Documentation to show wastewater will be removed for appropriate treatment and disposal



Option 1: Holding Tanks

Holding Tank Authorization

- MDE issues holding tank approvals
- A septic permit is not needed for the holding tank, unless required by local regulations
- Once a holding tank is approved by MDE, the facility can begin operations.



Option 2:

**Land Application of
Wastewater**



What is Land Application?

Option 2: Land Application of Wastewater

Land application is the beneficial reuse of food processing wastewaters via spray irrigation to the land surface.

These benefits include:

- Providing nutrients to support or increase the growth of vegetation
- Recharging the groundwater





Land Application Authorization

Option 2: Land Application of Wastewater

Land application can be authorized by either:

1. MDE: A *discharge permit* is required for land application of food processing wastewater

OR

2. MDA: State Chemist Office requires *registration* of nutrient containing wastewater as a 'Soil Conditioner' (*amendment*) if it is going to be land applied.

Regulatory Overlap = Opportunity for an Exemption from a Groundwater Discharge Permit

New regulation* utilizes this overlap with the intent to:

- Create a user-friendly approval process for land applying wastewater generated from small scale, typically on-farm food processing operations
- Provide an option to beneficially reuse food processing wastewater

*COMAR 26.02.08.09A(5)



How Does this Exemption Work?

Option 2: Land Application of Wastewater

IF:

MDA's State Chemist Office determines that food processing wastewater 'meets the requirements for registration as a soil conditioner' providing nutrients to support or increase the growth of vegetation

AND

MDE approves an Exemption Application

THEN

MDE won't require a discharge permit for the land application of the food processing wastewater

HOWEVER

*Responsible stewardship of the Food Processing Wastewater is **REQUIRED** via MDA's nutrient management and 'soil conditioner' regulations.*



Exemption Requirements

Option 2: Land Application of Wastewater

Requirements

- Land apply food processing wastewater onsite
- Register food processing wastewater as a Soil Amendment/Conditioner with the MDA's State Chemist's Office
- Comply with MDA's Nutrient Management Regulations (COMAR 15.20.04 to 15.20.08)
- Provide storage for wastewater when it is not possible to land apply due to precipitation, saturated soil, snow covered, or frozen ground
- Renew exemption from MDE every 5 years



Option 2: Land Application of Wastewater

Exemption Process

1. Holding Tank Approval
2. Submission of exemption application and wastewater analysis to MDE
3. Registration of wastewater as a 'soil conditioner' by State Chemist
4. Exemption approval issued by MDE

*Note: It is often not possible to apply for an exemption until after the facility is in operation with a holding tank. Typically, a representative sample of the facility's wastewater, which is necessary for approval by the State Chemist, can only be obtained after facilities have begun to operate.



Exemption Process

IMPORTANT

MDE retains authority to *deny an exemption application* and require a discharge permit for the land application of wastewater - even if it meets the requirements of a Soil Conditioner.

If an exemption is granted, MDE has authority to:

- Inspect a discharge permit exempted operation
- Revoke an approved exemption

An exemption approval is for 5 years and will have to be renewed every 5 years



Exemption Application



Exemption Approval Letter



Option 3: Subsurface Disposal



Option 3: Subsurface Disposal

Food processing wastewater that is discharged into the subsurface, typically via a drainfield.

Subsurface disposal is highly discouraged for many food processing wastewaters since it may:

- Be cost prohibitive for small scale food processing operations
- Require pretreatment
- Eventually cause drainfield issues even with pretreatment due to the nature of the wastewater
- Require a State Discharge permit



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