Well and Septic Guidelines for Farm Alcohol Production Facilities

Farm Alcohol Production Facilities (FAPFs) require review and approval from multiple regulatory agencies. These facilities include wineries, breweries, distilleries, etc. This document is meant to provide an overview of the requirements and expectations for facilities that will be served by wells and septic systems.

Well and Septic Permit Requirements
Each facility must have an approved septic reserve area that meets all current requirements, this may require new soils testing. Additional structures with plumbing must have separate septic areas and septic systems unless specifically authorized by the Approving Authority. Proposed water supply wells will also be reviewed. Prior to issuance of well and/or septic permits, a Final Well and Septic plan must be approved.

Septic Capacity and Design Flow
To determine the septic capacity needs of a proposed facility, it is best to provide a business plan or detailed narrative describing the proposed scope of operations such as: food preparation, catering, dishwashing, hours of operation, staffing, special events, seating arrangements, facility square footage, production details, future expansion plans, etc.

State flow guidelines require a tasting room to be sized for a minimum design flow of 400 gallons per day. Below are the current design flow requirements:
- Tasting rooms w/ warming kitchen: 5 GPD/person*
- Tasting rooms w/ commercial kitchen: 10 GPD/person*
- Add for full time employees: 15 gpd/employee

*this flow figure is based on number of fixed seats (indoors and outdoors). This is not the same as a building occupancy load calculation.

Additional Requirements and Considerations:
Wells must be drilled prior to issuance of any septic permits. A covenant or consent agreement must also be approved and signed by DPS and recorded in Land Records prior to the facility operating, or issuance of a Use & Occupancy certificate if applicable. The covenant must stipulate the septic system capacity, square footage, breakdown of estimated wastewater flows, etc. Please contact DPS Well and Septic for an example.

Wastewater strength must be evaluated in the design process. Additional safety factors may be built into the system design and permits. For example, TSS and BOD are potential concerns with beer waste. Standard pre-treatment units cannot effectively handle waste loads with extremely high BODs. Other considerations may include water meters on wells, beer head/waste beer routed to a dedicated holding
tank or same holding tank used for processing wastewater, control panel w/ elapsed time meters or event counters for pumped systems, etc.

Processing Wastewater Management Options

Wastewater from alcohol production is regulated differently than domestic wastewater because it is considered food processing wastewater (industrial wastewater). Maryland Department of the Environment (MDE) is the agency that regulates the onsite disposal of industrial wastewater. Please Contact the MDE Groundwater Permits Program at 410-537-3778 to discuss wastewater management options. Options for disposal of industrial wastewater include the following:

Option 1: Holding Tank - Collect and contain wastewater in a holding tank(s) for transport for offsite treatment. MDE co-reviews holding tank plans with DPS, and MDE grants final approval. A county septic permit is not required for the holding tank(s). Facilities on well and septic in Montgomery County still must obtain plumbing permits from WSSC. Please contact WSSC to review their requirements for a permitted waste hauler pumping and discharging the wastewater to a WSSC Water waste disposal site.

Option 2: Land Application of Wastewater - Land application is the beneficial reuse of food processing wastewaters via spray irrigation to the land surface. It provides nutrients to support or increase the growth of vegetation and recharges the groundwater. Land application can be authorized by either:

- MDE: A discharge permit is required for land application of food processing wastewater
- MDA: State Chemist Office requires registration of nutrient containing wastewater as a ‘Soil Conditioner’ (amendment) if it is going to be land applied.

Land application approval is completed through the MDE/MDA State Chemist Office joint review/approval process which allows an opportunity for an exemption from a Groundwater Discharge Permit. IF MDA’s State Chemist Office determines that the 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.

Option 3: Subsurface Disposal – Food processing wastewater discharged into the subsurface, typically via a conventional drainfield, is reviewed on a case-by-case basis. Subsurface disposal is highly discouraged for most food processing wastewater. Design requirements may require individually engineered Best Available Technology ‘BAT’ and other requirements that are cost prohibitive.