

Home-Based Processor/Microprocessor Fact Sheet

The KY Division of Water (DOW) assists the Department for Public Health, Agriculture Department and the University of Kentucky with the home-based microprocessor (HBM) program by approving sources of drinking water used by individuals within the program. Water used in the HBM program must be “potable”—the DOW makes that determination.

Step 1: Where does your drinking water come from?

- If the water to be used in the HBM industry is supplied by a regulated public water system, no action is necessary by the DOW.
- If the water to be used in the HBM business is supplied by a private drinking water source such as a well, spring or cistern, then the DOW will need to determine what steps the business will need to take to meet a definition of “potable”.
- Potable, for the purposes of the HBM program, shall be considered:
 - Groundwater - chlorination or other approved means of disinfection.
 - Surface Waters (including springs) - filtration and chlorination or other approved means of disinfection.
 - Hauled Water- chlorination or other approved means of disinfection.

Step 2: How do I get my home water source approved as potable?

- Individuals interested in becoming a home-based microprocessor should begin the process of determining whether the water source is potable at the same time they apply to the Department for Public Health. DOW engineering reviews can take as long as 90 days.
 - Contact the DOW's Engineering Section at (502) 564-3410.
- The following information must be submitted to the DOW:
 - Construction Application for Small Groundwater Systems and Semi-public Systems (DW-3) (<https://eec.ky.gov/Environmental-Protection/Water/PermitCert/Pages/Approvals.aspx>) make sure to fill in the section that asks for how many sinks, toilets, etc you have. Instructions on how to submit are provided as well.
- Applicable source water testing to determine necessary treatment:
 - Groundwater: Secondary contaminants, nitrate, nitrite, and E.coli
 - Surface Water: All regulated drinking water contaminants except radionuclides and Cryptosporidium but including turbidity and E.coli
 - **NOTE:** Testing must be done in a drinking water lab certified by KDOW for the contaminants you need to monitor. A list of labs can be obtained by emailing DOWLabCertification@ky.gov.
 - Description of the home-based micro-process, noting any special treatment or needs related to the potable drinking water supply.
 - Diagram showing the water source, pumps, piping to the building, existing treatment and holding tank(s) and location of potential sources of contamination such as septic tanks, leech fields and sewer lines.
 - Description of any current equipment used to deliver and treat the water:
 - Size of pumps
 - Type of treatment, including vendor and treatment capacity
 - Size of holding tanks
 - Line sizes

Step 3: Will I have to add any treatment?

- At a minimum, regardless of whether your source water is groundwater or surface water, you will be required to disinfect the water.

- This is typically done through chlorination.
- Other forms of disinfection, such as ultraviolet light or ozone, may require additional review and documentation.
- Should the source water monitoring indicate possible water quality problems with contaminants other than bacteria, further treatment may be necessary. For example, if the source water is high in iron, it may be necessary to remove the iron before use.
- The treatment process should be maintained and any records kept at the HBM business for review during Department for Public Health inspections.

List of National Secondary Drinking Water Regulations

Secondary Contaminant	Standard
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 color units
Copper	1.0 mg/L
Corrosivity	Non-corrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5-8.5
Silver	0.1 mg/L
Sulfate	250 mg/L
Total Dissolved Solids (TDS)	500 mg/L
Zinc	5 mg/L

A listing of all drinking water contaminants can be found at: <http://water.epa.gov/drink/contaminants/index.cfm>