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Information: New Hampshire Water Well Association

Information in this document is provided in good faith to inform the public about groundwater and water wells. Well owners should ensure that their well contractor has obtained permits (if required) and has referred to local codes, rules, regulations and laws for site selection, construction, maintenance and operation of water wells and water system equipment.

POINT-OF-USE (POU) AND POINT-OF-ENTRY (POE) WATER CONDITIONING

Water conditioning for the home is often a necessary and valuable investment. In order to choose the appropriate equipment and proper capacity you need to understand the cause of the water conditions that will be the target of the treatment. Knowing the source of the water quality problem(s) is an important factor in identifying the most effective treatment option. It is often less expensive and safer to eliminate the source of contamination than to treat it. If the cause of the water quality problem cannot be eliminated then there are two locations where water treatment equipment may be installed in a home, either at the point-of-use (POU) or at the point-of-entry (POE).

Water quality problems may be complicated. A one-size-fits-all solution is not usually available and technical knowledge and experience is needed to correctly match conditioning equipment to a water problem. It is frequently advisable to have your water tested by an independent certified laboratory before purchasing equipment. You will need to exercise consumer common sense if the person doing the water test is also selling the conditioning equipment.

Point-of-use simply means treating the water directly at one or more faucets. In most homes the kitchen faucet is chosen as the POU treatment location because most of the water used for cooking or drinking is obtained at this point. Faucet mounted or “under sink” treatment is often used when the substances to be removed (or reduced) are unhealthy or aesthetically unpleasant and cause no harm to the plumbing, fixtures or clothing. Lead, arsenic and chlorine fall into this category. Lead in particular needs to be treated at the tap because pipes and fixtures in older homes (built before 1987) often are the source of the problem. Carbon filters are very commonly used as POU devices. POU equipment is not designed to handle large volumes of water effectively in a short period of time compared to POE equipment designed for the same problem(s).

Point-of-entry involves treating all the water that enters the home from a well or public system. The equipment must be capable of handling the peak water demand flow for the home (e.g. “the family morning rush” through the shower and kitchen). The equipment is usually located in the basement of the home or wherever the source of water enters the building. Generally, treatment is needed when water quality problems such as hardness, high levels of iron, and acidity may degrade the plumbing, fixtures or cause scaling. An unhealthy level of radon in the water also needs to be treated through a POE system because this radioactive gas is released through agitation (aeration), which occurs during activities such as cooking, washing or showering.

Once you have decided between POU or POE equipment, remember that it will also have to be maintained on a periodic basis. Keep in mind that some kinds of systems require more frequent attention than others. Poorly maintained equipment may actually become dangerous. For example, as certain contaminants reach saturation in the filter (“full-filter” syndrome) they may be released back into the water flow. Also, some filters simply wear out or become depleted and must be replaced or replenished to work effectively. Having a qualified water professional (e.g., driller, plumber, pump installer or treatment specialist) take care of your equipment through a maintenance agreement may be a good option for those homeowners with little time for the procedures or access to the proper tools.

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