

Individual Booster Pumps – Policy for Reviewing an Exception to the Rules

This policy describes the information that a public water system must provide to the Division of Drinking Water when requesting an exception to the rules that prohibit the use of individual home booster pumps to address inadequate water distribution system pressure [i.e., water system pressure at service connections not meeting the requirements in Utah Administrative Code R309-105-9(2)].

I. Applicability

This policy applies to individual booster pumps that serve individual homes and businesses and connect directly to a public water system's distribution system.

II. Background

Three DDW rules prohibit the use of booster pumps at individual service connections in public water systems:

- R309-105-9(3)
 - *Individual home booster pumps are not allowed as indicated in R309-540-5(4)(c).*
- R309-540-5(4)(c)
 - *Individual home booster pumps shall not be allowed for any individual service from the public water supply main.*
- R309-550-11(3)
 - *Individual booster pumps shall not be allowed for individual service from the public water supply mains. Exceptions to the rule may be granted by the Director if it can be shown that the granting of such an exception will not jeopardize the public health.*

The use of an individual booster pump at a service connected to a public water supply main is prohibited because operation of the pump may create low pressure in the supply main and cross connection hazards allowing contaminants to enter water system distribution lines. The director, however, may grant an exception to the above rules if a public water system can demonstrate that granting the exception will not jeopardize public health.

III. Policy

1. The three rules identified above do not apply to booster pumps used for:
 - water distribution in premise plumbing of high-rise residential or commercial buildings that receive water of adequate system pressure per R309-105-9 at the service connection, or
 - water distribution dedicated to fire sprinkler/suppression systems in premise plumbing in buildings that receive adequate pressure per R309-105-9 at the service connection.
2. A public water system should first consider installing facilities that are under its control to address low distribution system pressure. Individual home booster pumps are not an

option to resolve deficiencies related to the required minimum pressures per R309-105-9. These exceptions are to be kept to a minimum. Multiple requests may trigger the need to install permanent facilities (i.e., booster pump, storage tank).

3. Allowing the use of individual home booster pumps should be the last resort and be used only when there is no other reasonable or practical solution.
4. If the use of an individual home booster pump is accepted by the water system and the Division, the pump installation and operation must meet the requirements in International Plumbing Code, Section 606.5, which addresses water pressure booster systems.
<https://up.codes/viewer/utah/ipc-2015/chapter/6/water-supply-and-distribution#6>
5. The water system must present the information identified in Section IV below to the Division when requesting an exception to the rules.

IV. Information Required when Requesting an Exception to the Rules

All of the following information must be provided to DDW for review of an exception to allow the use of an individual home booster pump:

1. Name and identification number of the public water system
2. Name, contact information, and job title of the person requesting the exception (water system's representative or agent)
3. The number and locations or addresses of individual booster pumps in a given pressure zone in the distribution system (Use of an individual booster pump will only be considered where no other reasonable alternatives exist. The number of booster pumps should be limited to the specific situation. For Example, if the request concerns a dead end water line serving three homes, only three booster pumps will be considered.)
4. A description of how drinking water quality and public health will be protected
5. A description of how cross connection hazards will be addressed
6. The individual booster pump has to meet the requirements of International Plumbing Code, Section 606.5
7. The individual booster pump has to be inspected and approved by the local plumbing code official
8. The individual booster pump has to be included in the public water system's ongoing cross connection control program
9. The public water system has to have access to inspect an individual home pressure booster pump
10. The public water system has to have a standard operating procedure in place to conduct scheduled inspections of the individual booster pump and document the inspection date and results
11. A note shall be added to the title or deed of the property with an individual home booster pump stating that an individual home booster pump is present and that the public water system has access to inspect it