

Section 3-20

Cross-Connections and Backflow Protection

- (a) **Prohibition of certain connections and installations.** In order to provide sanitary protection to the department's water supply and to comply with the applicable regulations of the State of Hawaii public health service or other Federal agency, as adopted or amended from time to time, the department will require that following the effective date of these rules and regulations no cross-connections with other water supplies, or other physical connections shall exist, or be installed, located, maintained or operated which could permit backflow of contaminated water or any other dangerous, impure, unsanitary, or unpotable substance from the consumer's premises into the department's water supply system, except as provided below:
- (1) Cross-connections with other water supplies. Owners (or operators) of presently existing water supplies which are in active use and cross-connected to the department's system will be required to secure permits for the continuance of such cross-connection. Permits will be granted on a provisional basis, renewable yearly, under the following conditions:
 - a. Where such water supplies are regularly examined by the department, or other agencies satisfactory to the department, and are approved by the department, as acceptable, safe and sanitary supplies and continue as such at all times while the connections are in existence.
 - b. Where such water supplies do not meet the requirements of a. above, are not normally under pressure and are maintained solely for fire fighting purposes and where adequate protection against backflow to the department's system is provided by mechanical or other methods or devices satisfactory to the department.
The department may waive the requirement of a permit and allow cross-connections to be continued or established if the connections are with water supplies defined as primary or community supplies by the State department of health and approved by the department and the State department of health as acceptable, safe and sanitary supplies.
 - (2) Other physical connections. Other physical connections may be permitted if, in the judgment of the department, adequate protection can be provided the water supply of the department against backflow by the installation of mechanical or other methods or devices approved by the department and installed, maintained and operated by the consumer In a manner satisfactory to the department at all times; provided however, that the department may require the consumer to eliminate or rearrange designated plumbing or piping connections or fixtures, or to install a backflow device at the meter or other location, subject to the approval of the department, as an added safety measure in addition to any and all other backflow protection required or provided by mechanical or

other methods or devices, whenever (1) the consumer is engaged in the handling of dangerous or corrosive liquids or industrial or process waters, highly contaminated water or sewage, or is engaged in the medical or dental treatment of persons who might have diseases transmittable by water, or whenever (2) in the judgment of the department there exists a danger of backflow into the department's main because of the possibility of unauthorized connections being created through noncompliance or inadvertence on account of the complexity of the system or systems or because of failure by the consumer to provide adequately qualified personnel and supervision for maintenance and extension of the consumer's piping system or systems, or for any other sufficient reason or cause.

- (b) **Separate pressure system.** The department will require the installation of mechanical or other methods or devices on the consumer's side of the meter whenever the consumer maintains a separate pressure system or a separate storage facility, or in any way increases the pressures of the water within his premises above the pressure furnished by the department or has such equipment devices or arrangement of piping, storage or industrial methods or processes that might under certain conditions raise the pressure of the water within his premises above the pressure of the water in the mains of the department. Plans for such installation must be approved by the department.
- (c) **Pressure regulation required of consumer.** As a protection to the consumer's plumbing system a suitable pressure relief valve must be installed and maintained by him at his expense when backflow devices are installed on the consumer's side of the meter.
- (d) **Location and inspection of protective devices.** Any device installed for the prevention of backflow, as may be required under these rules and regulations, shall (unless the department approves otherwise in writing), be located above ground and in such a manner as to be safe from flooding or submergence in water or other liquids, properly protected from external damage, freely accessible and with adequate working room for inspections, testing and repairing.
- All such devices shall be tested by owner at least once every fourth months and inspected internally not less than once annually. Repairs, replacements of parts, etc., shall be made immediately at the expense of the consumer. Making of tests and annual inspections shall be the responsibility of the consumer and shall be made by the consumer or other qualified person or persons in accordance with methods acceptable to the department. Records of tests and inspection shall be made on forms prescribed by the department and a copy of such records shall be furnished to the department. Failure of the consumer to make the proper tests and submission of records may, at the option of the department, result in the department's making the tests, needed repairs and replacements and charging the costs thereof to the consumer.
- (e) **Affidavit of compliance.** Upon request of the department, the consumer shall present an affidavit either certifying to the fact that there are no connections or other installations of the type prohibited in paragraph (a) of Sec. 3-20 on his premises or describing in detail all non-conforming connections or installations.
- (f) **Conformance with laws and ordinances.** The several conditions relative to the installation and maintenance of cross-connections and other physical connections referred to in this section shall be subject to change to meet changing requirements of the state and federal health

authorities and of the building code of the county of Maui.

- (g) **Discontinuance of service for non-compliance.** Failure on the part of the consumer to comply with the department's requirements relative to cross-connections and backflow protection will be sufficient reason for discontinuing service until such time as the requirements have been met.

"By Water All Things Find Life"

Department of Water Supply
County of Maui
