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SOUTH HILLS WATER SYSTEM, INC.

CROSS CONNECTION BYLAWS

Pursuant to Chapter 333, Division 61 of the Oregon Administrative Rules, it is the responsibility of the South Hills Water System to protect its drinking water by instituting and enforcing a cross connection program. Therefore, the following bylaws are hereby adopted:

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1:01 DEFINITIONS

- (1) "Approved backflow prevention assembly" means an assembly to counteract back pressures or prevent back siphonage. This assembly must appear on the list of approved assemblies issued by the Oregon State Health Division.
- (2) "Auxiliary supply" means any water source or system other than the public water system, that may be available in the building or on the premises.
- (3) "Backflow" means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the South Hills Water System.
- (4) "Contamination" means the entry into or presence in a public water supply system of any substance which may be deleterious to health and/or quality of the water.

- (5) "Cross Connection" means any physical arrangement where a public water system is connected, directly or indirectly, with any other non-drinkable water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, or any other device which contains, or may contain, contaminated water, sewage, or other liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.
- (6) "Degree of hazard" shall be derived from the evaluation of a health, system, plumbing or pollutional hazard.
- (7) "Health hazard" means an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to health.
- (8) "Owner" means the Owner of South Hills Water System or authorized agent.
- (9) "Plumbing hazard" means an internal or plumbing-type cross-connection in a consumer's potable water system than may be either a pollutional or a contamination-type hazard. This includes, but is not limited to, cross-connections to toilets, sinks, lavatories, washtrays, domestic washing machines and lawn sprinkling systems. Plumbing-type cross-connections can be located in many types of structures including homes, apartment houses, hotels and commercial or industrial establishments.
- (10) "Pollutional hazard" means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree of intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (11) "System hazard" means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water system or of a pollution or contamination which would have a detrimental effect on the quality of the potable water in the system.
- (12) "Potable water supply" means any system of water supply intended or used for human consumption or other domestic use.
- (13) "Premises" means any piece of land to which water is provided including all improvements, mobile home(s) and structures located on it.
- (14) "Reduced pressure principle assembly" shall mean an assembly containing two independently acting approved check valves together with a hydraulically-operated, mechanically

independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shut off valves at the end of the assembly. A check valve is approved if it appears on the list of approved assemblies issued by the Oregon State Health Division.

(15) "Thermal Expansion" means heated water not having the space to expand.

1:02 PURPOSE

The purpose of these bylaws is to protect the water supply of the South Hills Water System from contamination or pollution due to any existing or potential cross connections.

1:03 CROSS CONNECTIONS REGULATED

No cross connections shall be created, installed, used or maintained within the territory served by the South Hills Water System, except in accordance with these bylaws.

1:04 BACKFLOW PREVENTION ASSEMBLY REQUIREMENT

Approved backflow prevention assemblies shall be installed at the expense of the user at the service connection in each of the following circumstances:

- (1) The nature and extent of any activity of the premises, or the materials used in connection with any activity of the premises, or materials stored on the premises, could contaminate or pollute the drinking water supply.
- (2) Premises having any one or more cross connections as that term is defined in Section 1:01 paragraph 5 are identified or are present.
- (3) Internal cross connections that are not correctable, or intricate plumbing arrangements which make it impractical to ascertain whether or not cross connections exist.
- (4) There is a repeated history of cross connections being established or re-established.
- (5) There is unduly restricted entry so that inspections for cross connections cannot be made with sufficient frequency or with sufficient notice to assure that cross connections do not exist.
- (6) Materials of a toxic or hazardous nature are being used such that, if backflow should occur, a health hazard could result.
- (7) Any mobile apparatus which uses South Hills Water System water or water from any premises within the South Hills Water System.
- (8) Installation of an approved backflow prevention assembly is deemed to be necessary to

accomplish the purpose of these bylaws in the judgement of a certified cross connection specialist employed by the South Hills Water System.

(9) An appropriate cross connection report form has not been filed with the South Hills Water System.

(10) A fire sprinkler system using non-potable piping material is connected to the South Hills Water System.

1:05 RENTAL PROPERTIES

All residential properties occupied by persons other than the property owner shall install an approved backflow prevention assembly, or the property owner shall assume all responsibility for any backflow that should occur.

1:06 INSTALLATION REQUIREMENTS

To ensure proper operation and accessibility of all backflow prevention assemblies, the following requirements shall apply to the installation of these assemblies.

(1) No part of the backflow prevention assembly shall be submerged in water or installed in a location subject to flooding. If installed in a vault or basement, adequate drainage shall be provided.

(2) Assemblies must be installed at the point of delivery of the water supply, before any branch in the line, on private property located just inside of the property line.

(3) The assembly must be protected from freezing and other severe weather conditions.

(4) All backflow prevention assemblies shall be of a type and model approved by the State of Oregon Health Division and the South Hills Water System.

(5) Only assemblies specifically approved by The Oregon Health Division for vertical installation may be installed vertically.

(6) The assembly shall be readily accessible with adequate room for maintenance and testing. Assemblies 2" and smaller shall have at least 6" clearance on all sides of the assembly. All assemblies larger than 2" shall have a minimum clearance of 12" on the back side, 24" on the test cock side, 12" below the assembly and 36" above the assembly.

(7) Lids on vault installations shall be of a size which will allow for the use of confined-space entry and emergency equipment.

(8) The property owner assumes all responsibility for all maintenance and testing of the

assembly, as determined and required by the South Hills Water System.

(9) If written permission is granted to install the backflow assembly inside of the building, the assembly shall be readily accessible during regular working hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.

(10) If an assembly, with written permission, is installed inside of the premises and is 4" or larger and is installed 4' above the floor, it must be equipped with a rigidly and permanently installed scaffolding acceptable to the South Hills Water System. This installation must also meet the requirements set out by the U.S. Occupational Safety and Health Administration and the State of Oregon Occupational Safety and Health Codes.

(11) RP assemblies may be installed in a vault only if relief valve discharge can be drained to daylight through a "boresight" type drain. The drain shall be of adequate capacity to carry the full rated flow of the assembly and shall be screened on both ends.

(12) An approved air gap shall be located at the relief valve orifice. This air gap shall be at least twice the inside diameter of the incoming supply line as measured vertically above the top rim of the drain and in no case less than 1".

(13) Upon completion of installation, the South Hills Water System shall be notified and all assemblies must be inspected and tested. All backflow assemblies must be registered with the South Hills Water System. Registration shall consist of date of installation, make, model, serial number of the backflow assembly, and initial test report.

(14) Any water pressure drop caused by the installation of a backflow assembly is not the responsibility of the South Hills Water System.

(15) All new construction shall install an approved backflow assembly at the service connection. This assembly will be commensurate with the degree of hazard as determined by an inspector.

1:07 ACCESS TO PREMISES

Authorized employees of the South Hills Water System, with proper identification, shall have access during reasonable hours to all parts of a premise and within the building to which water is supplied. However, if any water user refuses access to a premise or to the interior of a structure at reasonable times and on reasonable notice for inspection by a cross connection specialist appointed by the South Hills Water System, a reduced pressure principle assembly will be required to be installed at the service connection to that premise.

1:08 ANNUAL TESTING AND REPAIRS

All backflow assemblies installed within the territory served by the South Hills Water System shall

be tested immediately upon installation, if repaired, if moved, and at least annually thereafter by a state certified tester. All such assemblies found not functioning properly shall be promptly repaired or replaced by the water user. If any such assembly is not promptly repaired or replaced, the South Hills Water System may deny or discontinue water to the premises. All testing and repairs are the financial responsibility of the water user.

1:09 CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER RESPONSIBILITIES

- (1) Upon request by the Owner, each person certified as a backflow prevention assembly tester shall furnish evidence to show that he/she is licensed, insured and bonded to perform services on private property.
- (2) It is the responsibility of testers to act in a professional manner. A certified tester may be banned from testing within the South Hills Water System if the Owner determines that the tester:
(a) has falsely, incompletely, or inaccurately reported assembly reports; (b) has used inaccurate gauges; (c) has used improper testing procedures; (d) has expired insurance; or (e) is not in compliance with safety regulations.
- (3) Each applicant certified as a backflow prevention assembly tester shall furnish evidence to show that he/she has successfully completed "Permit Confined Space Entry Training" as specified by Federal Occupational Safety and Health Agency's 29 CFR 1910.146.
- (4) Each tester must provide evidence of general commercial liability insurance.

1:10 THERMAL EXPANSION

It is the responsibility of the property owner to eliminate the possibility of thermal expansion, if a closed system has been created by the installation of a backflow assembly.

1:11 COSTS OF COMPLIANCE

All costs associated with purchase, installation, inspections, testing, replacement, maintenance, parts, and repairs of the backflow assembly are the financial responsibility of the property owner.

1:12 TERMINATION OF SERVICE

Failure on the part of any customer to discontinue the use of all cross connections and to physically separate cross connections, or failure to adhere to any part of these Bylaws, is sufficient cause for the immediate discontinuance of public water service to the premises. (OAR chapter 333-061-0070, section 1)

1:13 CONSTITUTIONALITY AND SAVING CLAUSE

That if any provision, section, sentence, clause or phrase of these Bylaws or the application of

same to any person or set of circumstances are for any reason held to be unconstitutional, void, invalid or for any reason unenforceable, the validity of the remaining portions of these bylaws or its application to other persons or circumstances shall not be affected thereby, it being the intent of the South Hills Water System in approving these bylaws that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision, or regulation.

1:14 EFFECTIVE DATE

These bylaws shall be effective as of _____.

Signed

Title