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State Water Resources Control Board Division of Drinking Water 50 D Street, Suite 200, Santa Rosa, CA 95404

Cross Connection Control – Non-community Water Systems

Purpose of Cross Connection Control Program

Water provided by a public water system may be contaminated via cross connections within the user's distribution system. The purpose of the cross-connection control program is to eliminate actual cross connections and to reduce the hazard of potential cross connections. This is accomplished by identifying actual and potential cross connections and either installing appropriate backflow prevention assemblies or ensuring that water-using equipment is installed in accordance with plumbing code requirements and good practice.

What are cross connections?

Cross connections are unprotected connections between a potable water system and any source or system containing unapproved water or a substance, which is not safe. Examples of cross connections include:

- Improperly installed irrigation systems (which may allow back siphoning of stagnant, bacterially contaminated water into the piping system) or premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are or can be injected
- 2. Improperly plumbed water-using devices such as hot tubs, boilers or commercial dishwashers
- Irrigation systems served by an auxiliary source, such as an unapproved well or a creek. Such systems, if connected to the drinking water system, create a potential for contamination via cross connections.
- 4. Interconnections between the potable system and a non-potable system.

How to Comply

For Noncommunity water systems, the program consists of identification of hazards and protection of the system from these hazards. The program is to be adapted to the size and complexity of the system. The following are the required elements and necessary actions:

1. <u>Identification of Hazards</u> -This consists of a review of the system facilities to identify areas of potential contamination via cross connections. A survey of the system is to be conducted with documentation of the findings. Any facilities that handle wastewater or hazardous liquids require special evaluation to ensure protection of the potable system from contamination.

2. <u>Protection of System</u> -Taking action to abate the potential cross connection by ensuring compliance with plumbing codes, installing and maintaining appropriate backflow prevention assemblies and other means. This includes annual testing and repair or replacement as needed.

Completion and Documentation

Attached is additional information and forms that you can use to help guide you through this program. A survey of the system is to be conducted by a qualified person. Documentation of the survey findings is to be maintained and submitted to the Division when requested.

Attachments - Information and forms for surveys

Notes:

- 1. Regulatory Authority: Pursuant to Section 7584 of the California Code of Regulations, which states "The water supplier shall protect the public water supply from contamination by implementation of a cross connection control program".
- 2. Applicability: Noncommunity water systems

Cross Connection Survey Summary Form Noncommunity Water Systems

System Name	Number
Date of Survey Name of person performing survey Qualifications of person performing surv	vey:
Description of Survey (Elements of surv	ey, how conducted, hazards identified):
Actions taken (Include description of coinstalled):	rrections, backflow prevention assemblies
Long-term (Include description of who was from cross connections and testing of baseline)	vill ensure ongoing protection of the system ackflow prevention assemblies):
Other (Include other elements of progra	m):
Name of person completing this report Signature	Date

Cross Connection Control for Irrigation Systems

General

Public water systems are to be protected from actual and potential cross connections between irrigation systems and domestic water systems. This is accomplished by ensuring that the irrigation system is installed in accordance with the requirements of the Uniform Plumbing Code with appropriate backflow prevention assemblies.

Auxiliary Sources

For systems with an unapproved auxiliary source serving the irrigation system, additional protective action is necessary to prevent introduction of water from the auxiliary source into the drinking water system. The following actions are to be taken to guard against this hazard:

- 1. Identify all interties between the domestic system and the irrigation system.
- 2. Either disconnect these interties or install approved backflow prevention assemblies at each intertie. A Reduced Pressure Principle backflow prevention device is the type of device to be installed.
- 3. Verify that there are no other active interconnections between the domestic and irrigation systems. This is accomplished by draining the irrigation system and verifying that it does not refill with water from the domestic system through an undetected cross connection. This procedure should be repeated on a periodic basis (once every three months).
- 4. All hose bibs supplied by an irrigation system with an unapproved auxiliary source are to be posted as "Non-Potable Do Not Drink" and should be accessible only to operating personnel and not the general public.

Chemical Injection

Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected a reduced pressure principle backflow prevention device is required.