STATE OF CALIFORNIA GRAY DAVIS, *Gove*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 6, 2001

TO: PARTIES OF RECORD IN CASE 00-06-012
DECISION 01-02-003, MAILED FEBRUARY 6, 2001

On January 5, 2001, a Presiding Officer's Decision in this proceeding was mailed to all parties. Public Utilities Code Section 1701.2 and Rule 8.2 of the Commission's Rules of Practice and Procedures provide that the Presiding Officer's Decision becomes the decision of the Commission 30 days after its mailing unless an appeal to the Commission or a request for review has been filed.

No timely appeals to the Commission or requests for review have been filed. Therefore, the Presiding Officer's Decision is now the decision of the Commission.

The decision number is shown above.

/s/ LYNN T. CAREW
Lynn T. Carew, Chief
Administrative Law Judge

LTC:sid

Attachment

ALJ/JCM-POD/sid **Mailed 2/6/2001**

Decision 01-02-003 February 6, 2001

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Mark III Engineering Contractors, Complainant, vs. Southern California Water Company; Arden-Cordova Water Company; and Citizens Utilities Company of California, Respondents.	Case 00-06-012 (Filed June 7, 2000)

John Hedden, Attorney at Law, and Gary Brienza, for Mark III Engineering Contractors, complainant.
Patricia A. Schmiege, Attorney at Law, Barbara Baird, and William C. Gedney, for Southern California Water Company, and E. Garth Black, Attorney at Law, and Robert S. Roscoe, for Citizens Utilities Company of California, defendants.

O P I N I ON

Summary

This decision requires Southern California Water Company (SoCal Water) and Citizens Utilities Company of California (Citizens) (jointly, Defendants) to cease their practice of routinely requiring Mark III Engineering Contractors (Mark III) to include backflow protection devices at all new water service connections for Class 1 and Class 2 fire protection systems on all projects

planned by Mark III in Defendants' service territories. Defendants may still require backflow prevention devices where conditions warrant, but only after evaluating the specific circumstances applying to each proposed service connection.

Background

Mark III designs commercial buildings in Northern California, including areas in and around Sacramento County. Citizens and SoCal Water (dba Arden-Cordova Water Company) provide Commission-regulated water utility service to some of those areas.

Mark III alleges, and both Defendants acknowledge, that Defendants' routine practice is to require approved backflow prevention assemblies be installed at the service connections for all new commercial buildings having Class 1 or Class 2 fire sprinkler systems.

Backflow is the undesirable reversal of flow into a potable water distribution system. A cross-connection is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable.[1] When the pressure in the supply side of a potable water supply system is lower than the pressure somewhere else such that water could flow backward into the supply line, a cross-connection is said to exist and there is a potential for the system to become contaminated.

[1] California Code of Regulations (CCR), Title 17, Section 7583(e).

One method to prevent backflow into a water system is to install one-way valve arrangements or disconnects between the supply line and the potential source of backflowing water. Modern water distribution technology includes a variety of cross-connection and backflow prevention devices and assemblies that serve just that purpose. In some cases, there are tradeoffs in installing backflow prevention devices, including additional cost and reduction in water pressure.

Mark III designs fire sprinkler systems to be incorporated into the buildings it constructs. Defendants have concluded that the water in all fire sprinkler systems may over time become stagnant and a source of backflow contamination to the potable water supply system. Thus, they require all service connections to premises which have fire sprinkler systems to have approved backflow prevention devices installed and maintained at the user's expense regardless of the circumstances of the particular location.[2] [3]

Class 1 automatic fire sprinkler systems are those with direct connection from public water mains only; no pumps, tanks, or reservoirs; no physical connection from other water supplies; no anti-freeze or additives of any kind; and all sprinkler drains discharging to the atmosphere or other safe outlets. Class 2 sprinkler systems are the same as Class 1 except that booster pumps may

[2] While the complaint and most of the testimony related to fire sprinkler systems, dead-end water lines to hydrants on private property may be subject to the same considerations.

[3] Defendants' requirements may go considerably further, including requiring all new commercial connections to have approved backflow devices installed, but those requirements are outside the scope of this complaint.

be installed in the connections from the street mains.[4] There are additional fire protection system classes, but they are not at issue here.

Mark III points to the straightforward language of H&SC Section 13114.7(b), which provides,

> [Class 1 and Class 2] automatic fire sprinkler systems... shall not require any backflow protection equipment at the service connection other than required by standards for those systems contained in the publication of the National Fire Protection Association entitled "Installation of Sprinkler Systems"....

Thus, according to Mark III, Defendants' practice requiring it to include approved backflow protection devices at all new water service connections for Class 1 and Class 2 fire protection systems on all projects planned by Mark III in Defendants' service territories is unnecessary and unlawful when applied routinely to its projects without consideration of the conditions specific to each site.

Both Defendants maintain their practice is appropriate and required by law. More specifically, the requirement arises variously from the provisions of Commission General Order (GO) 103; CCR, Title 17, Sections 7583 through 7605; the Sacramento County Plumbing Code and the City of Sacramento's cross-connection policy; the State Fire Marshal's and Department of Health Services' (DHS) joint Information Bulletin on Cross-Connection Control Requirements; an American Water Works Association Research Foundation (AWWARF) research report; and each utility's Tariff Rule 16. Both Defendants summon largely the same arguments and references in their defense, and in any case endorse one-

[4] Health and Safety Code (H&SC) Section 13114.7(a).

another's positions, so the discussion here will not attempt to distinguish between them except where the differences are significant.

Assigned Administrative Law Judge McVicar was designated as the presiding officer for this adjudicatory proceeding. A prehearing conference was held on August 7, 2000, and one day of evidentiary hearing on September 27, 2000. The proceeding was submitted on concurrent briefs due November 6, 2000.

Discussion

Under H&SC Section 116555(a)(3), Defendants have an obligation to provide a reliable and adequate supply of pure, wholesome, healthful, and potable water; and their systems must not be subject to backflow under normal operating conditions. Similarly, GO 103 requires the water they provide to be wholesome, potable, in no way harmful or dangerous to health and, insofar as practicable, free from objectionable odors, taste, color and turbidity. GO 103 goes on to prohibit any physical connection between the distribution system and that of any other water supply except in compliance with DHS' regulations relating to cross-connections, CCR, Title 17.

CCR, Title 17, Sections 7583 through 7605, relate to cross-connections. Section 7584 states that the "water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program," which shall include "conducting of surveys to identify water user premises where cross-connections are likely to occur," and "the provisions of backflow protection by the water user at the user's connection or within the user's premises or both." Section 7585 provides,

> The water supplier shall evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises. The water supplier, however, shall not be responsible for abatement of

cross-connections which may exist within a user's premises. As a minimum, the evaluation should consider: the existence of cross-connections, the nature of materials handled on the property, the probability of a backflow occurring, the degree of piping system complexity and the potential for piping system modification. Special consideration shall be given to the premises of the following types of water users:

(a) Premises where substances harmful to health are handled under pressure in a manner which could permit their entry into the public water system. This includes chemical or biological process waters and water from public water supplies which have deteriorated in sanitary quality.

(b) Premises having an auxiliary water supply, unless the auxiliary supply is accepted as an additional source by the water supplier and is approved by the health agency.

(c) Premises that have internal cross-connections that are not abated to the satisfaction of the water supplier or the health agency.

(d) Premises where cross-connections are likely to occur and entry is restricted so that cross-connection inspections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.

(e) Premises having a repeated history of cross-connections being established or re-established.

Sections 7601 through 7603 describe acceptable backflow preventers and where they may be located.

Section 7604 provides,

The type of protection that shall be provided to prevent backflow into the public water supply shall be commensurate

> with the degree of hazard that exists on the consumer's premises.... The minimum types of backflow protection required to protect the public water supply, at the water user's connection to premises with various degrees of hazard are given in Table 1. Situations which are not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the water supplier or health agency.

Table 1, Type of Backflow Protection Required, specifically covers (d), Fire Protection Systems, and gives four examples of different arrangements the water supplier might encounter on evaluating a user's premises.[5] The arrangements in each of the four examples would require backflow protection, but none of them could qualify as a Class 1 or Class 2 system.

The language of Sections 7585 and 7604 leaves little doubt that water suppliers must consider the specific conditions on each user's premises in deciding whether backflow protection is needed, and if so, what type. And, while there are minimum requirements for both the factors to be considered and the type of backflow prevention appropriate in some situations, it is ultimately the water supplier's and/or health agency's decision which type to require so long as it is commensurate with the degree of hazard on that user's premises.

Defendants' showings do not acknowledge this "must consider" aspect of the cited CCR sections. Instead, they have concluded that they may mandate backflow protection for all premises having fire protection systems regardless of circumstances. To reach that conclusion, they cite the Sacramento County

[5] Defendants moved into evidence an exhibit containing an outdated copy of these Sections 7583 through 7605. What was Table 1, paragraph (c) has become (d). The difference is of no significance here.

Plumbing Code and the City of Sacramento's cross-connection policy; a State Fire Marshal and DHS joint Information Bulletin on Cross-Connection Control Requirements; an AWWARF research report; and each utility's Tariff Rule 16. Each of these authorities will be addressed in turn.

Sacramento County Plumbing Code and the City of Sacramento's Cross-Connection Policy

In order to construct a building, one must first obtain a building permit. Depending on building location, that entails review of the proposed design by local county or city officials, in this case Sacramento County or the City of Sacramento.

Citizens' witness produced an excerpt from the Sacramento County Plumbing Code indicating that Sacramento County has within that code adopted and incorporated by reference the California Plumbing Code, which in turn incorporates by reference the Uniform Plumbing Code, 1997 Edition. The single lead page of the Sacramento Plumbing Code admitted into evidence also indicates that there are separately-adopted exceptions to parts of one or both of these codes, although there is no indication on the record whether those exceptions relate to fire sprinkler systems or cross-connection protection requirements. The Uniform Plumbing Code calls for backflow protection on automatic sprinkler systems.

Mark III's witness testified, however, that in his extensive experience Sacramento County does not routinely require the level of backflow prevention on fire systems that Defendants do. He presented as an example of a set of plans he had participated in preparing, and which had been approved by Sacramento County officials without such protection. It included a Sacramento County Public Works Agency standard Fire Protection Detail sheet that called for a

"detector check valve," a component which provides some limited backflow protection but would not qualify as an approved backflow prevention assembly. So the evidence does not indicate that Sacramento County requires the same degree of backflow prevention on automatic sprinkler systems that Defendants do. In any case, it is the water supplier or health agency that bears responsibility under Title 17 for protecting the water system from cross-connections. If Sacramento County also has a requirement for backflow protection on all fire systems, it apparently does not follow it in the type of situation at issue here.

Defendants also had admitted into evidence a portion of what was said to be the City of Sacramento's cross-connection policy. It does require Class 1 and Class 2 fire protection systems to have approved backflow prevention assemblies installed. On closer reading, however, it appears to be the cross-connection policy of the City's own water system, and there is no reason to believe that it applies to customers of public utilities operating within the City. Again, it is the water supplier or health agency that bears responsibility under Title 17 for protecting the water system from cross-connections, not the municipal water system of the city within which the public utility water system operates.

In making their argument here, Defendants point to H&SC Section 13114.5, which provides, "The governing body of any city or county may enact ordinances or laws imposing restrictions greater than those imposed by Sections 13113 and 13114," as justification for their own policies requiring backflow prevention assemblies despite Section 13114.7's specific prohibition against requiring them for Class 1 and Class 2 fire protection systems. However, Defendants have not shown that the City of Sacramento or County of Sacramento has effectively enacted such an ordinance or law that either intended to be applied to Defendants' systems. Moreover, Section 13114.5 does not grant

Defendants as water suppliers the right to override the very specific requirement of Section 13114.7.

The State Fire Marshal and DHS Joint Information Bulletin on Cross-Connection Control Requirements

Backflow prevention assemblies tend to reduce the water pressure available on a user's premises, and thus may reduce the level of protection otherwise provided by fire sprinkler systems. Designers need to take this into consideration when designing fire protection systems. In some cases, it may be necessary to install booster pumps, and dependence on pumps in addition to supply system pressure represents an added measure of fire risk. Since requiring backflow prevention invokes both water quality and fire protection issues, the State Fire Marshal and DHS in February, 1994 issued a joint Information Bulletin specifically addressing how H&SC Section 13114.7, which restricts backflow protection equipment requirements for Class 1 and Class 2, is to be administered:

> The objective of this bill[6] is to provide reasonable backflow protection to the domestic water utility without the requirements for installation of redundant assemblies on fire protection systems by either the public water supplier or the local health agencies. Assembly Bill 2503 defines Class 1 and 2 fire systems as they are defined in Section 6.3 of the American Water Works Association Manual: M-14. Further provisions in Section 6.3 state: "Generally, fire protection systems of Classes 1 and 2 will not require backflow protection at the service connection. Pumper connections of automotive fire department equipment to street hydrants are not ordinarily health hazards."

[6] Assembly Bill 2503, Statutes of 1982, which enacted Section 13114.7.

AB 2503 definitions of Classes 1 and 2 fire protection systems are interpreted to refer to those systems which generally and ordinarily would not require an approved backflow prevention assembly at the fire system user connection in order to protect the public water system. However, it is recognized that "special conditions" may exist on the site of a Class 1 or 2 fire sprinkler system such that an actual or potential contamination hazard is present, and consequently the public water supplier would require the installation an approved backflow prevention assembly at the user connection for the fire sprinkler system.

Attachment B lists examples of "special conditions" which may exist. Where such conditions exist or are suspected, the representatives of the public water supplier and the local fire department should investigate and evaluate the premises to determine whether an approved backflow prevention assembly is warranted and should be required at the user connection. If the water supplier and fire agency representatives do not agree on the level of protection, the matter shall then be reviewed with designated representatives of the California Department of Health Services. If agreement is not reached at this level, the State Fire Marshal shall make the final determination as to the level of protection required....

* * *

This updated information is being issued because of concerns regarding the potential hazards associated with backflow of stagnant water into potable water distribution systems from existing connections to Class 1 and 2 fire sprinkler systems not equipped with approved backflow prevention assemblies. The State Fire Marshal and the California Department of Health Services anticipate working with the American Water Works Association to encourage research to evaluate the potential hazards related to the quality of water in fire sprinkler systems and the adequacy and reliability of existing check valves and unapproved backflow prevention assemblies installed on

> Class 1 and 2 fire sprinkler systems. You will be advised of the findings of that research and of any changes in the law.

The joint Information Bulletin's Attachment B states, "The use of 'black pipe' or other materials currently unapproved for potable water systems in the fire sprinkler system does not necessarily constitute 'special conditions.'" This statement takes on additional importance in the context of the AWWARF report described below.

Defendants construe the joint Information Bulletin, taken together with the AWWARF report, as strong justification for their policy of requiring approved backflow prevention assemblies be installed without exception at the service connections for all new commercial buildings having Class 1 or Class 2 fire sprinkler systems. On the contrary, the joint Information Bulletin once again calls for the public water supplier (and the local fire department) to investigate and evaluate each new sprinkler-equipped user's arrangements before making a determination. This interpretation, besides being self-evident, is consistent with the theme of the joint Information Bulletin: Installing backflow prevention devices on the supply lines for sprinklered premises involves drawing a balance between water quality protection requirements and fire protection needs. Neither is to be favored to the exclusion of the other.

The AWWARF Research Report

The final two sentences in the joint Information Bulletin quoted above refer to DHS' and the State Fire Marshal's intention to work with American Water Works Association to encourage future research. AWWARF is a nonprofit corporation dedicated to the implementation of a research effort to help utilities respond to regulatory requirements and traditional high-priority concerns of the

industry. Defendants introduced an AWWARF research report setting forth what appear to be the first results of that effort.[7]

Among the AWWARF report's conclusions and recommendations is,

> Cross-connection control for Class 1 and Class 2 wet-pipe fire sprinkler systems using approved backflow prevention assemblies on new construction is recommended based on the following findings: (1) water quality within the black-steel Class 1 and Class 2 wet-pipe fire sprinkler system exceeds national primary and secondary drinking water standards; (2) for new construction, the pressure loss related to the installation of a backflow prevention assembly can be engineered into the design of the new sprinkler system; and (3) the cost of the backflow prevention assembly when included in new construction is low because the backflow prevention assembly is a minor cost when compared to the cost of the non-residential structure within which the sprinkler is to be installed....

Its conclusions and recommendations, however, also include these caveats:

> Current information on backflow prevention devices, from outside sources, should be utilized when evaluating the need and risk of installing a backflow prevention assembly on an automatic fire sprinkler system. In particular, backflow manufacturers have begun to address historical fire community concerns regarding backflow prevention in the design of backflow prevention assemblies (e.g., loss of pressure across double check valves or reduced pressure principle assemblies, cost of systems equipped with [those valves and assemblies], and retrofit issues such as space available for [their installation] in existing systems.)

[7] Impact of Wet-Pipe Fire Sprinkler Systems on Drinking Water Quality, AWWARF, 1998.

Thus, as the AWWARF report acknowledges, and as we have seen in other evidence, there are risks and tradeoffs inherent in requiring backflow assemblies on fire protection systems.

The AWWARF report also acknowledges the limitations of its study: "The majority of wet-pipe fire sprinkler systems are constructed of black steel pipe," and, "Even though other types of piping materials are permitted by [National Fire Protection Association] to be used in wet-pipe sprinkler systems, none of the wet-pipe systems sampled in this research project were constructed of copper or plastic piping." This leads AWWARF to the conclusion,

> Existing wet-pipe fire sprinkler systems that utilize copper or plastic piping materials should be investigated to determine impacts on drinking water quality. In addition, the use of newer or alternative piping materials should be investigated for impacts on water quality in wet-pipe fire sprinkler systems.

Thus, the AWWARF report evaluates only black pipe, wet-pipe systems even as it acknowledges and describes five other, different types of automatic sprinkler systems and two other piping materials available to the fire protection industry today. One of those (antifreeze system) is described as another type of wet system; one can be either wet or dry; and the remaining three are dry-pipe systems. Defendants' policy, however, treats all fire protection systems regardless of system class or type of materials used (indeed, treats all commercial buildings) identically, as potential sources of contaminated backflow.

The February, 1994, State Fire Marshal and DHS joint Information Bulletin, anticipating further research which was most likely in part this AWWARF report, indicated, "You will be advised of the findings of that research and of any changes in the law." Seven years later, and two years after AWWARF published its report, the law has not changed and there is no indication DHS and the State

Fire Marshal have altered their earlier directive to water suppliers: Installing backflow prevention devices on the supply lines for sprinklered premises involves drawing a balance between water quality protection requirements and fire protection needs, and the public water supplier (and the local fire department) must investigate and evaluate each new sprinklered user's arrangements before making a determination to require backflow assemblies.

Tariff Rule 16

Mark III also cites each Defendant's Tariff Rule 16C, which requires a user who employs a pump to increase the pressure of water received from the utility's main or service connection to do so only through a backflow prevention arrangement approved by the utility. At the time the complaint was filed, each Defendant's Rule 16C contained the following exception:

> This requirement shall not apply to American Water Works Association Class 2 fire protection systems, except as provided for in the Information Bulletin issued by the Office of the State Fire Marshal on December 10, 1984.[8]

On June 29, 2000, three weeks after the complaint was filed, Defendant SoCal Water filed an advice letter revising Rule 16C to require approved backflow protection devices on *all* fire services (including hydrants and fire sprinklers), and additionally, on all commercial, industrial and institutional water services, and it subsequently incorporated the new requirement into its defense against Mark III's complaint. Two weeks later, on July 14, 2000, it filed a

[8] This Information Bulletin was replaced by the February, 1994, State Fire Marshal and DHS joint Information Bulletin on Cross-Connection Control Requirements described earlier.

second advice letter strengthening that requirement, clarifying how it would be applied to existing versus new fire services, and deleting the Rule 16C exception for Class 2 fire protection systems quoted above. The basis on which SoCal Water was able to get those advice letter filings accepted and into its tariffs is the subject of a separate inquiry outside of this complaint proceeding.

Both Defendants still have in their tariffs the following provision in Rule 16C(2), Backflow Preventers Required:

> The utility will evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises. As a minimum, the evaluation will consider: The existence of cross-connections, the nature of materials handled on the property, the probability of a backflow occurring, the degree of piping system complexity and the potential for piping system modification.

This wording echoes CCR, Title 17, Section 7585. It once again underscores that both Defendants must consider the specific conditions on a user's premises in deciding whether backflow protection is needed, and if so, what type, and that there is a minimum set of factors they must evaluate in doing so.

Other Considerations

In evidentiary hearings, the parties brought out two additional topics that should be noted.

First, Mark III's witness, who has designed hundreds of fire protection systems in Northern California over the years, testified that alarm-equipped fire protection systems in Sacramento County are flushed and refilled with potable water at least quarterly to meet Sacramento County Fire Department testing requirements. This could lessen or eliminate the concern that water in wet-pipe systems may become stagnant, the major basis for the AWWARF report.

Defendant SoCal Water's witness, on the other hand, testified in another context that he might consider water in a fire protection system stagnant even if it were flushed daily. We do not assume here that most systems are flushed regularly, but if even some are, that strengthens the argument for evaluating each installation on its own merits.

Second, there was a specific project location under design on Mercantile Drive in unincorporated Rancho Cordova, Sacramento County, for which SoCal Water was in the process of requiring Mark III to provide backflow protection when the complaint was filed. Mark III objected, and the parties litigated their disagreement in the evidentiary hearing in addition to the more generic issue. Absent this complaint, SoCal Water would routinely have required backflow protection be installed at the Mercantile Drive site without doing a site-specific evaluation. In preparing its defense, SoCal Water did evaluate the specifics of the site, including the piping arrangements on the premises and the intended use of the property. Those were explored on the record, and SoCal Water explained its conclusion that the Mercantile Drive location, home of a future auto-body shop, met three of the four examples of special conditions set forth in the Fire Marshal and DHS February, 1994, Information Bulletin. SoCal Water has in the end fulfilled the requirement that it conduct a site-specific evaluation of the Mercantile Drive location and may now enforce the conclusion it has reached. It should make a similar evaluation of other sites in the future.

In arriving at our result in this proceeding, we do not mean to minimize the need for water utilities to be vigilant in protecting their systems from contaminating cross-connections. The evidence does indicate that backflow, including backflow from premises with fire protection systems, is possible and has happened in other jurisdictions in the past. Instead, we seek to emphasize

the need for Defendants to evaluate each situation in light of the tradeoffs between water quality protection and fire protection, as required by law.

Findings of Fact

1. Defendants' routine practice is to require approved backflow prevention assemblies be installed at the service connections for all new commercial buildings having Class 1 or Class 2 fire sprinkler systems, including at service connections for projects designed by Mark III, without evaluation of the serving arrangements and regardless of the circumstances at the particular location.

2. Sacramento County does not enforce the same high degree of backflow prevention on premises with automatic sprinkler systems that Defendants do.

3. Defendants have not shown that the City of Sacramento's cross-connection policy applies to Defendant's water users within the City of Sacramento.

4. Defendants have not shown that the governing body of any city or county has enacted an ordinance or law imposing restrictions on Defendants' water users greater than those imposed by H&SC Section 13114.7.

5. Section 6.3 of the American Water Works Association Manual M-14 states that Class 1 and Class 2 fire protection systems generally will not require backflow protection at the service connection.

6. The AWWARF report, Impact of Wet-Pipe Fire Sprinkler Systems on Drinking Water Quality,1998, while recommending cross-connection control using approved backflow prevention assemblies for Class 1 and Class 2 wet-pipe fire sprinkler systems in new construction, at the same time acknowledges there are some types of Class 1 and Class 2 systems that are outside the scope of its research and require further investigation to determine their impacts on water quality.

7. There are risks and tradeoffs inherent in specifying backflow prevention assemblies on fire protection systems. Installing backflow prevention devices on the supply lines for sprinklered premises involves drawing a balance between water quality protection requirements and fire protection needs.

8. DHS and the State Fire Marshal have issued a joint Information Bulletin directing water suppliers to investigate and evaluate each new sprinklered user's arrangements before making a determination to require backflow assemblies.

9. SoCal Water has conducted the required site-specific evaluation of Mark III's Mercantile Drive location, including the piping arrangements on the premises and the intended use of the property, and determined that the location includes three of the four example special conditions the Fire Marshal and DHS joint Information Bulletin cites as possibly warranting approved backflow prevention assemblies.

Conclusions of Law

1. Taken together, H&SC Sections 116555(a)(3) and 13114.7(b), and CCR, Title 17, Sections 7685 and 7604, provide that Defendants may not require backflow protection equipment at the service connection for a user's premises with Class 1 and Class 2 automatic fire sprinkler systems absent an evaluation of that user's specific serving arrangements to determine whether there may be conditions present which pose a credible threat of contamination to the distribution system. Any such evaluation must as a minimum consider the factors set forth in CCR, Title 17, Section 7585, and under Section 7604 any backflow protection required must be commensurate with the degree of hazard on the consumer's premises.

2. H&SC Section 13114.5 does not grant Defendants as water suppliers the right to override the requirement of Section 13114.7(b).

3. Defendants' practice requiring approved backflow protection devices at all new water service connections for Class 1 and Class 2 fire protection systems on all projects planned by Mark III in Defendants' service territories is unlawful and a violation of each Defendant's Tariff Rule 16C(2) when applied routinely to Mark III's projects without an evaluation of the conditions specific to each location.

4. Because of the impact of today's decision on current projects and practices, the order should be made effective immediately.

O R D E R

IT IS ORDERED that:

1. Southern California Water Company and Citizens Utilities Company of California shall cease their practice of routinely requiring Mark III Engineering Contractors to include approved backflow protection devices at all new water service connections for Class 1 and Class 2 fire protection systems on all projects planned by Mark III in their service territories.

2. Southern California Water Company and Citizens Utilities Company of California may still require backflow prevention devices on Mark III Engineering Contractors' projects where conditions warrant, but only after evaluating the specific circumstances applying to each proposed service connection.

3. This proceeding is closed.

This order is effective today.

Dated February 6, 2001, at San Francisco, California.