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Tom Enslow  
Adams Broadwell Joseph & Cardozo  
Sent Via Fax and Email

Dear Tom:

Attached is a report detailing my findings on the survey I have performed on behalf of Adams Broadwell Joseph & Cardozo along with my bio for information purposes.

As you know, I was contracted to perform a phone survey of building departments around the state to assess current enforcement patterns of home and worker safety provisions required during the installation of Chlorinated Polyvinyl Chloride (CPVC) pipe for residential potable water systems.

I am confident that the findings are fair, true and accurate to the best of my abilities.

I want to thank you for the opportunity to work with you and look forward to working together soon.

Sincerely,

Mark A. Capitolo

## Executive Summary

Survey calls were made to the building departments of 59 targeted cities and counties between March 21 and April 13, 2005. The cities and counties called were targeted based on their likelihood of allowing use of CPVC pipe for interior residential use due to past reports of problems with corrosion of metal pipe.

First, a plumbing official or specialist was requested. If the locality did not have a specific plumbing official, a plumbing inspector, senior inspector, senior plan checker or the building official typically answered the calls.

After an introduction and explanation of the survey it was determined whether or not the official was willing or had enough information to answer the survey. In total, an official with 46 of the 59 jurisdictions targeted were introduced to the survey. The survey questionnaire is attached as an appendix.

***The most significant finding of the survey reveals that the California Plumbing Code's (CPC) home and worker safety provisions that require inspection during installation are completely un-enforced in localities where CPVC is currently being used in residential housing units.***

***In fact, the survey shows that in many cases building departments are implementing haphazard compliance measures neither called for nor detailed in any way in the CPC.***

While no building department reported enforcing the law during installation, some claimed to make attempts to enforce by implementing such procedures as requiring blanket certifications or simply providing the guidelines and advising the applicant in writing of the regulations. Most however, say they depend on self-enforcement or enforce only the provisions that do not require monitoring the installation process.

The widespread lack of enforcement can be summed up in the words of one official who stated, "I don't get too bureaucratic with people."

## Where CPVC is Used

Of all 59 localities contacted, 33 officials reported allowing CPVC, 11 reported banning the product, two refused to answer questions and 13 could not or would not return calls requesting information.

### *Jurisdictions that allow CPVC*

Alhambra	Clairmont	Los Angeles County
Bakersfield	Coachella	Lake Elsinore
Barstow	Contra Costa County	Livermore
Benicia	Corona	Oakley
Beverly Hills	Culver City	Oceanside
Brea	Danville	Orange County
Brentwood	Davis	Perris
Burbank	Discovery Bay	Placer County

Calaveras County  
Cathedral City

Duarte  
Kern County

Riverside County  
San Joaquin County  
Santa Barbara County  
Santa Maria  
Tuolumne County

*Jurisdictions that have banned CPVC*

Adelanto  
Clovis  
Colton

Escondido  
Hemet  
Merced County

Moreno Valley  
San Bernardino County  
Santa Clarita  
San Ramon  
Vallejo

*Jurisdictions that refused*

Tulare County  
Yucaipa

*Jurisdictions that did not respond*

Dana Point  
Fillmore  
Fresno  
Garden Grove

Highland  
Hollister  
City of Los Angeles  
Madera County

Nevada County  
Porterville  
City of San Diego  
Stanislaus County  
Yuba County

In only six cases did the officials contacted enforce any of the required home and worker safety provisions:

Barstow  
Coachella  
Davis  
Oakley  
Los Angeles County  
San Joaquin County

Survey Results

A breakdown of some of the key data regarding enforcement is shown below.

***Generally, it is reported that no jurisdiction performs inspections during installation and all of the 33 jurisdictions that allow CPVC fail to 100% comply with all of the CPC's mitigation regulations.***

Jurisdictions That Allow CPVC	33
Fail to Comply 100%	33/33
Enforce None of the Provisions	27/33
Enforce Some but Not All	6/33
Certification or Advise	6/33
Enforced All of the Flushing Requirements	1/33
Enforced Some of the Flushing Requirements	4/33
Enforced the Ventilation and Glove Requirements	0/33

Of the six jurisdictions that partially enforced the CPVC mitigation measures, most of them only enforced the requirement that the contractor provide a signed, written, worker-safety certification stating that:

- (1) They are aware of the health and safety hazards associated with CPVC plumbing installations.
- (2) They have included in their Illness and Injury Prevention Plan the hazards associated with CPVC plumbing pipe installations; and
- (3) The worker safety training elements of their Injury and Illness Prevention Plan meets the Department of Industrial Relation’s guidelines.

Only *one* jurisdiction fully implemented all of the flushing requirements. One other jurisdiction enforced the initial flush and the warning tag requirement, but did not return to ensure the second flush took place. Two jurisdictions required the architect, engineer or contractor to certify they have complied with the flushing requirement, but did not inspect to ensure compliance. Generally, the sentiment was that “enforcing the second flushing was difficult.”

Not one jurisdiction fully enforced the ventilation and glove use measures. When directly asked, none of the building officials felt that enforcing the ventilation and glove use measures was either feasible or effective. Most of them pointed to a lack of manpower and resources. They also stated that enforcement was difficult because “it would require us to be present when they are doing the installation.”

One building official stated that his department would need an extra fee to pay for the additional enforcement requirements. The building officials surveyed also complained “it’s difficult for building officials to enforce” these provisions because they go “beyond the scope of their jobs.”