



July 9, 2007

**Field Report  
University of Southern California  
Zurn Z5798 The Pint Urinal**

**Background**

In the past, USC installed non-flushing urinals in some of their campus facilities. Over time, campus personnel observed a build-up of what they believed to be uric sodium inside the traps, drains and drain lines in, and behind, the non-flushing urinals. University staff became concerned that the lack of water flowing through the non-flushing fixtures allows uric sodium to crystallize and adhere to the inside diameter of the drain system, thereby constricting flow within the system.

The University began investigating alternative water-saving plumbing fixture options.

**Z5798 The Pint Urinal Study**

Sometime in January 2007, officials at USC installed two Zurn Z5798 (The Pint) High Efficiency Urinal Systems at their maintenance facility. This location was chosen intentionally as an installation representative of typical usage and conditions. Additionally, the restrooms in which these systems were installed were used on a daily basis by the plumbing and maintenance staff, allowing for on-going observation and comment on the performance of The Pint.

The purpose of this study was to evaluate the performance of The Pint over a six-month period to determine its reliability and functionality, as well as to measure the amount, if any, of uric sodium crystallization in the trap and/or drain system.

## **Results**

Throughout the six month trial period, The Pint, operating with 0.125 gallons per flush, performed reliably and University staff noticed no functional difference between it and conventional urinal/flush valve combinations using 0.5 gallons per flush or greater.

On Thursday, June 7, 2007, University staff gathered to uninstall one Z5798 and examine the condition of the trap, drain and drain line. When The Pint High Efficiency Urinal System was removed from the wall, those observing noticed no build-up, crystallization or constriction of any kind in the trap or drain behind the system. (Fig. 1)

In addition to USC Plumbing staff, also in attendance were:

Patrick J. Ternan – Zurn Industries, LLC  
Ken Borgquist – Westmark Enterprises, Inc. (Zurn Manufacturer's Reps)  
Solomon Robinson – Los Angeles Unified School District  
James Hicks – Los Angeles Unified School District  
Murphy Malone – California Science Center  
Nathan Miranda – California Science Center

## **Conclusion**

The Zurn Z5798 High Efficiency Urinal System provides sufficient flow in a normal installation, under typical conditions, to flush the trap, drain and drain lines, and prevent uric sodium build-up and line constriction.

## **Follow-Up**

The University of Southern California has adopted Zurn's Z5798 (The Pint) High Efficiency Urinal System as the standard in their New Construction specifications.

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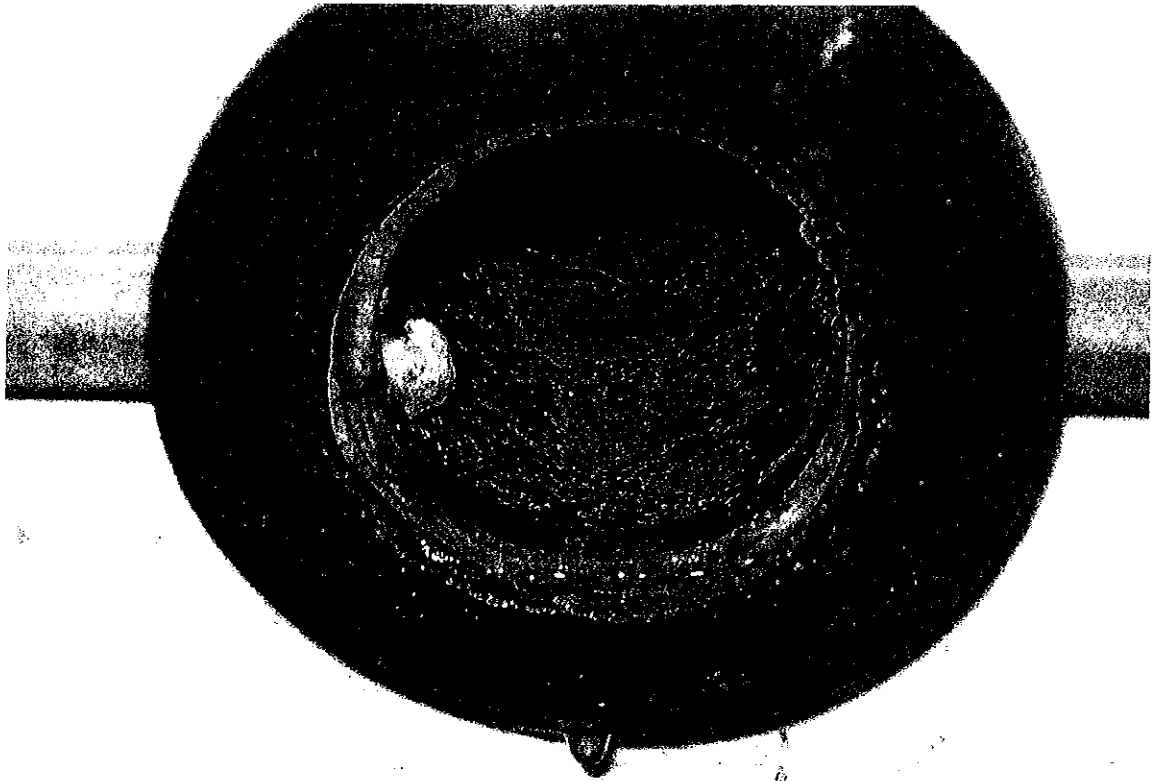


Fig. 1