

Overflow

By Pat Toner

UPDATE



Two years ago, the latest model plumbing codes available for cast polymer manufacturers' reference were the 2000 editions. Since then, all three model codes have been updated—there are now 2003 editions of each of the codes.

In an article for *CPC* two years ago (*CPC* July/August 2003) I noted that manufacturers frequently ask if overflows are required or if there is a minimum size or flow rate requirement. The short answer at that time was no, and despite recent revisions, the answer continues to be NO.

The Big Three

But let's get back to basics and start with a little regulatory background review. The three major plumbing codes in use in the United States are:

- **The National Standard Plumbing Code (NSPC)**¹, published by the Plumbing-Heating-Cooling Contractors - National Association (www.phccweb.org);
- **The Uniform Plumbing Code (UPC)** (IAPMO/ANSI UPC 1-2003)², published by the International Association of Plumbing & Mechanical Officials (www.iapmo.org) and,
- **The International Plumbing Code (IPC)**³, published by the International Code Council (www.iccsafe.org).

All three of the codes above reference ANSI Z124.3-1995, Plastic Lavatories,⁴ as the standard for plastic lavatories. Here are the requirements from each of the three codes:

1. **NSPC** - Section 7.1 states "Plumbing fixtures, plumbing fixture trim, and plumbing appliances shall comply with the standards listed in Table 3.1.3"⁽¹⁾. Table 3.1.3, Section V, 8, lists the standard for plastic lavatories as ANSI Z124.3-1995. Further, Section 7.6.1 requires plastic lavatories to comply with ANSI Z124.3.

2. **UPC** - Section 301.1.3 indicates that accepted plumbing materials standards are included in Table 14-1. Table 14-1 includes ANSI Z124.3-95.²

3. **IPC** - Section 416.1 states "Lavatories shall conform to ANSI Z124.3, ..." and Section 416.2 states "cultured marble vanity tops with an integral lavatory shall conform to ANSI Z124.3"⁽³⁾. Chapter 13 of the code specifies ANSI Z124.3-95).³

Overflow Standards Three Ways

So what does ANSI Z124.3 - 1995 say about overflows?

The ANSI standard clearly states that overflows are optional, saying:

"Overflows. The use of overflow in or on a lavatory unit(s) is optional. The location and size of the overflow shall be at the discretion of the individual manufacturer. (2.1.4)"⁴

The three plumbing codes, NSPC, UPC, and IPC, also have sections specifically dealing with overflows. The code provisions regarding overflows are "conditional," i.e., they only apply "where" or "when" overflows are present. If an overflow is present, it must not allow water to rise in the overflow when the drain is closed or to retain water when the lavatory is empty.

NSPC - Section 7.6.4, Integral Overflow, states "Where lavatories include an integral overflow drain, the waste fitting shall be designed and installed so that standing water in the bowl of the fixture cannot rise in the overflow channel when the drain is closed, nor shall any water remain in the overflow channel when the bowl is empty. The overflow shall drain to the inlet side of the fixture trap"⁽¹⁾. It also includes the comment that "Overflows are not provided in all lavatories. Lavatories with overflows are not used in hospitals because of the potentially unsanitary condition caused by inaccessible surfaces exposed to waste."¹

UPC - Section 404.0, Overflows, states "When any fixture is provided with an overflow, the waste shall be so arranged that the

standing water in the fixture cannot rise in the overflow when the stopper is closed or remain in the overflow when the fixture is empty. The overflow pipe from a fixture shall be connected on the house or inlet side of the fixture trap, except that overflow on flush tanks may discharge into the water closets or urinals served by them, but it shall be unlawful to connect such overflows with any other part of the drainage system."²

IPC - Section 405.7, Design of overflows, states "Where any fixture is provided with an overflow, the waste shall be designed and installed so that standing water in the fixture will not rise in the overflow when the stopper is closed, and no water will remain in the overflow when the fixture is empty." Section 405.7.1, connection of overflows, states "The overflow from any fixture shall discharge into the drainage system on the inlet or fixture side of the trap."

In summary, overflows are not required and there is no specific or minimum flow rate if an overflow is present. **CPC**

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- (1) 2003 National Standard Plumbing Code, Plumbing-Heating-Cooling Contractors National Association (PHCCNA), Falls Church, Va.
- (2) Uniform Plumbing Code 2003 Edition, International Association of Plumbing and Mechanical Officials (IAPMO), Ontario, Ca.
- (3) 2003 International Plumbing Code, International Code Council (ICC), Falls Church, Va. NOTE: The ICC is the merger of the International Council of Building Officials (ICBO), Building Officials and Code Administrators International (BOCA), and the Southern Building Code Congress International (SBCCI), all of which formerly published their own set of codes and may still be referenced in certain jurisdictions.
- (4) ANSI Z124.3 - 1995, American National Standard for Plastic Lavatories, American National Standards Institute, NY, NY.