

Plumbing Board
UPC Amendment Committee – Meeting Minutes
December 15, 2015 – 12:30 p.m.

Department of Labor and Industry
443 Lafayette Road No., St. Paul, MN 55155-4344

UPC Committee Members Present

Scott Eggen (Chair)
Joe Beckel
John Parizek
Jim Lungstrom

DLI Staff & Visitors

Jim Peterson (DLI)
Lyndy Lutz (DLI)
Lori Herzog (DLI)
Richard Hauffe (ICC)
Mike Obermueller (Winthrop Weinstine)

Committee Members Absent

Pete Moulton
Larry Justin
John Flagg

I. Call to Order

The meeting was called to order by Chair Eggen at 12:38 p.m. Introductions and housekeeping announcements were made.

II. Approval of Meeting Agenda

A motion was made by Beckel, seconded by Lungstrom, to approve the Agenda. The vote was unanimous and the motion carried.

III. Approval of Meeting Minutes

A motion was made by Lungstrom, seconded by Parizek, to approve the Minutes with revisions as shown below. The vote was unanimous and the motion carried.

IV. Special Business

A. Discuss Committee Organization

The direction going forward is to review the *2015 2018* UPC.

IV. Regular Business

- a. Approval of Expense Reports and Per Diems
– Eggen approved the expenses as presented.

V. Special Business

A. Review Amendment Draft Proposals

1. Proposals
2. Submission Process
3. Board Approval

A motion by Parizek, seconded by Lungstrom, to carry forward all proposed code language recommendations to the Plumbing Board for review. The vote was unanimous and the motion carried.

B. Other

The following table is a summary of suggested changes to bring forward for discussion by the Plumbing Board.

Chapter	Section	Comments/Discussion	Proposed Amendment #
2	218.0 Plumbing System	See attached language	1
2	220.0 Registered Professional Engineer	See attached language	2
3	301.3 Alternate Materials and Methods of Construction Equivalency	See attached language	3
3	301.5.6 Inspection and Testing	See attached language	4
3	317.1 General	See attached language	5
4	409.7 Pedicure Tubs	See attached language	6
4	412.1.1 Nonwater Urinals	See attached language	7
7	707.4.1 Back-to-Back	See attached language	8
7	710.12 Grinder Pump Ejector	See attached language	9
7	715.3 Existing Sewers	See attached language	10
8	804.2 Domestic or Culinary Type Fixtures Prohibited as Receptors	See attached language	11

VI. Open Forum

There were no requests to speak during open forum.

VII. Discussion

No discussion

VIII. Announcements

- There were no UPC Amendment Committee meetings scheduled.
- A special Plumbing Board meeting will be held at 9:30 a.m. on December 29, 2015 in the Minnesota Room to discuss Proposal Amendments 1 through 11.

IX. Adjournment

A motion was made by Parizek, seconded by Lungstrom, to adjourn the meeting at 2:05 p.m. The vote was unanimous and the motion carried.

Respectfully submitted,

Scott Eggen

Chair, UPC Amendment Committee

Proposed Amendment #1

218.0

Plumbing System. Includes all potable water, alternate water sources, building supply, and distribution pipes; all plumbing fixtures and traps; all drainage and vent pipes; and all building drains and building sewers, including their respective joints and connections, devices, receptors, and appurtenances within the property lines of the premises and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, liquid and fuel gas piping, and water heaters and vents for same.

The proposed amendment adds the term *alternate water sources* as part of the plumbing system. With an increase in water conservation and alternate water sources now being used to supply various fixtures and applications, the related piping and distribution systems must now be considered part of the plumbing system.

Proposed Amendment #2 – Larry Justin and Jim Kittelson withdrew the motion. Fails by lack of a motion.

220.0

Registered Professional Engineer - For purposes of this code, "registered professional engineer," "engineer," or "registered engineer" means a person practicing professional engineering as granted authority by the State, through examination, to design and seal construction documents within their area of competency.

The proposed phrase “registered professional engineer” is commonly used throughout the 2015 UPC. The definition also includes references to “engineer” and “registered engineer” because the UPC uses those terms as well to mean the same thing. The term “registered professional engineer” was chosen to coordinate with licensure requirements for the practice of professional engineering as described in Minnesota Statutes, section 326.02, subdivision 3, that are specific to the State of Minnesota as a professional engineer by the Board of Architecture, Engineering, Land Surveying, Landscape architecture, Geoscience, and Interior Design, but it is believed that this term is commonly used and is consistent in many states. The proposed amendment is needed and reasonable for consistent and clear use of the term in this code. This definition coincides with language proposed in Section 301.4.6.

Proposed Amendment #3

301.3 Alternate Materials and Methods of Construction Equivalency. Nothing in this code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this code. **Prior to installation,** technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency. **Unless prohibited by this code or by law,** the Authority Having Jurisdiction shall have the authority to approve or disapprove the system, method, or device for the intended purpose. However, the exercise of this discretionary approval by the Authority Having Jurisdiction shall have no effect beyond the jurisdictional boundaries of the Authority Having Jurisdiction. An alternate material or method of construction so approved shall not be considered as in accordance with the requirements, intent, or both of this code for a purpose other than that granted by the Authority Having Jurisdiction where the submitted data does not prove equivalency.

The proposed amendment adds "*Prior to installation*" to the second sentence to clarify that technical documentation of alternate materials and methods to the code that demonstrate equivalency must be submitted for approval before installation occurs. Approval before installation eliminates additional costs that might result if installation begins before the alternates are approved and need revision per the Authority Having Jurisdiction. Additional proposed amendment to this section clarifies that alternates to the code submitted for approval shall not be prohibited elsewhere in the code or law. The proposed amendments establish reasonable requirements that permit alternates from the code to keep current with new technologies while maintaining public safety and reasonable costs.

Proposed Amendment #4

301.5.6 Inspection and Testing. The alternative engineered design shall be tested and inspected in accordance with the submitted testing and inspection plan and the requirements of this code. **Prior to the final plumbing inspection, the registered design professional shall provide written certification to the administrative authority that the system has been visually inspected by the registered design professional or the registered design professional's designee, and the installation has been properly implemented according to the certified plans, calculations, and specifications.**

The section requires alternative engineered designs be tested and inspected. The proposed amendment further specifies that the registered design professional must certify that the registered design professional (or designee) has visually inspected the system and that installation was properly implemented. That is, the proposed amendments provide clarity to the vague language. Most alternative engineered designs are complex and require expertise in the registered design professional's field. Therefore, visual inspection by the registered design professional or their designee reasonably ensures that the installation is in accordance with the engineered design.

Proposed Amendment #5

317.1 General. ~~Soil or drain pipes installed over areas where food or drink shall not~~ will be stored, prepared, or displayed ~~beneath soil or drain pipes, unless those areas are protected against leakage or condensation from such pipes reaching the food or drink as described below. Where building design requires that soil or drain pipes be located over such areas, the installation shall be made with the least possible~~ installed with the minimum number of joints necessary and shall be installed so as to be connected to the nearest adequately sized vertical stack with the following provisions as follows:

- (1) **Plumbing** openings through floors over such areas shall be sealed watertight to the floor construction.
- (2) Floor and shower drains installed above such areas shall be equipped with integral seepage pans.
- (3) Soil or drain pipes shall be of an approved material as listed in Table 1401.1 and Section 701.1. Materials shall comply with established standards. Cleanouts shall be extended through the floor construction above.
- (4) Piping subject to operation at temperatures that will form condensation on the exterior of the pipe shall be thermally insulated.
- (5) Where pipes are installed in ceilings above such areas, the ceiling shall be of the removable type, or shall be provided with access panels in order to form a ready access for inspection of piping.

The proposed amendment re-words the plumbing requirements for drainage piping installed over food preparation, and storage areas. The amended language continues to require soil or drain pipes installed over food areas have minimum protection to prevent food contamination but clarifies this in a more direct manner without repetitive language. Provisions 1 thru 5 address these requirements in greater detail. Possible contamination of food being stored or prepared below the drainage piping can lead to sickness and public health outbreaks at food establishments. Therefore, it is reasonable to establish specific requirements to protect the health and safety of the public.

Provision (1) adds the word "*plumbing*" to specifically describe the type of openings related to this code. The current language requires all openings, plumbing or non-plumbing related, to be sealed which may conflict with the intent of other construction methods or requirements.

Proposed Amendment #6

409.7 Pedicure Tubs.

Pedicure fixtures must comply with IAPMO IGC 281-2015.

This proposed amendment adds a new subsection. Pedicure tubs are plumbing appliances or (special plumbing fixtures) supplied with a water and drain outlet like any other bathtub. However, this fixture is not a listed plumbing fixture in the 2015 UPC. Pedicure tubs function very much like the whirlpool bathtubs with the exception that the size is much smaller and only the feet are submerged instead of the body. The use of these pedicure tubs exposes the public to concerns of health/sanitation and spreading of diseases through water retention from the recirculation components of the pedicure tubs which are similar to the use of a typical whirlpool bathtub in a public setting, even substantially more since pedicure tubs are used in commercial nail salons and the turnaround usage is extremely high. Therefore, minimum requirements for health and sanitation must be established to protect the public with the proposed amendment.

The available pedicure tub standard is IAPMO IGC 281-2015, Pedicure Fixtures, which applies to fixture material construction, water retention tests, fitting requirements, as well as backflow provisions.

Proposed Amendment #7

412.1.1 Nonwater Urinals. Nonwater urinals shall have a barrier liquid sealant to maintain a trap seal. Nonwater urinals shall permit the uninhibited flow of waste through the urinal to the sanitary drainage system. Nonwater urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where nonwater urinals are installed, not less than one water supplied fixture rated at not less than 1 water supply fixture unit (WSFU) shall be installed upstream on the same drain line to facilitate drain line flow and rinsing. ~~Where nonwater urinals are installed they shall have a water distribution line rough-in to the urinal location to allow for the installation of an approved backflow prevention device in the event of a retrofit.~~

The proposed amendment removes the requirement to install a water distribution line rough-in that allows for installation of an approved backflow prevention device in the event of a retrofit. The installation of water lines to approved fixtures which do not require water exceeds the intent of a basic plumbing document for minimum requirements. The current requirement creates dead-ends where water lines are capped, causing stagnant water which could lead to concerns about the growth of organisms (legionella) in dead-ends. Such growths would affect the quality of drinking water and become a public health concern. The proposed change offers better public health protection and is less expensive than the current requirement.

Proposed Amendment #8

707.4.1 Back-to-Back.

A cleanout shall be provided on a common vertical fixture drain or common vent serving two fixture traps that connect to a vertical drain at the same level. The cleanout shall be the same nominal pipe size as the drain serving the fixtures. Where the vertical drain is accessible through the trap opening, the cleanout may be eliminated.

The proposed amendment adds a new subsection to require a cleanout on the vertical drain or vent serving back-to-back fixtures when a common vent at the same level is utilized. A cleanout is a capped or plugged opening in a drain pipe that can be accessed to unclog a pipe such as with a drain auger. When a sanitary cross is used in common venting, cleaning equipment cannot always be easily directed into the vertical drain from the trap arm unless the trap adapter is immediately adjacent to the sanitary cross. Because the horizontal distance between the sanitary cross and the trap opening will vary with building construction or drainage piping arrangement, discretion is also given to eliminate the cleanout where the vertical drain is accessible through the trap opening.

Proposed Amendment #9

710.12 Grinder Pump Ejector. Grinder pumps shall be permitted to be used. The sump basin storage volume and the pump capacity shall be sized adequately to prevent overloading and shall at a minimum accommodate water demand peak flow from all fixtures.

The proposed amendment adds requirements that the sizing of the sump and pump capacity for grinder pumps must be adequate to prevent overloading. Grinder pumps are generally designed with low discharge rates and small sumps so the sumps can fill up quickly, creating an unsanitary condition in the building. The plumbing system designer must consider sizing of the sumps and pumps when using grinder pumps in the plumbing design. It is reasonable and more cost-effective to address pump capacity and sump basin size properly in the design to prevent sewage backing up into the building drainage system rather than trying to retrofit larger capacities after installation.

Proposed Amendment #10

715.3 Existing Sewers. Replacement of existing building sewer and building storm sewers using cured-in-place pipe lining trenchless methodology and materials shall be installed in accordance with ASTM F 1216. Replacement using cured-in-place pipe liners shall not be used on collapsed piping or when the existing piping is compromised to a point where the installation of the liners will not eliminate hazardous or insanitary conditions.

The proposed amendment adds, “*cured-in-place pipe lining*” to the first sentence to specify the type of trenchless methodology that is allowed under this code. The proposed amendment also adds, “Replacement using cured-in-place pipe liners shall not be used on collapsed piping or when the existing piping is compromised to a point where the installation of the liners will not eliminate hazardous or insanitary conditions.” The new sentence clarifies that conditions where the existing sewers are significantly damaged to the point that the lining will not provide sufficient remedy are not appropriate for using cured-in-place lining technology. It is reasonable to clearly prohibit the use of cured-in-place pipe lining when the existing sewers are substantially damaged to prevent insanitary conditions.

Proposed Amendment #11

804.2 Domestic or Culinary Type Fixtures Prohibited as Receptors. No plumbing fixture that is used for domestic or culinary purposes shall be used to receive the discharge of an indirect waste.

Exception: Domestic use dishwashers may discharge into a sink, or discharge to a sink tailpiece or food-waste grinder when installed in accordance with Section 807.3.

The proposed amendment adds this subsection to clarify that sinks that are intended for domestic purposes or food preparation, including in commercial settings, must not receive any indirect waste piping. An exception allows domestic use dishwashers in residential settings to discharge into a sink, sink tailpiece or food-waste grinder if properly installed. The amendment is reasonable and necessary to prevent contamination of food in domestic and culinary plumbing fixtures.