

## LARA-BCC-Rules

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**From:** Dave Watson <dwatson@davewatson.biz>  
**Sent:** Monday, August 28, 2023 9:03 AM  
**To:** LARA-BCC-Rules  
**Cc:** Myers, Kole (LARA); tdanielak@ualocal85.org  
**Subject:** Proposed changes to the Construction Codes,Part 7  
**Attachments:** Plumbing-Part 7.pdf

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Att. Tony Williamson

This is to advise the BCC of my opposition to certain proposed changes in the Michigan Plumbing Code.

Specifically, a new ASSE standard for water heaters, ASSE 1082, is being misapplied in the following 2021 IPC sections.

412.5 bathtubs and whirlpools

412.10 head shampoo sink faucets

423.3 footbaths and pedicure sinks

607.1.2 tempered water temperature control.

The misapplication of ASSE 1082 could result in hot water scald burns. the attached PDF contains the forward to ASSE 1082 where in the highlighted area it states " these devices are not intended for end use applications..."

To continue. An existing ASSE standard, ASSE 1017 "performance requirements for mixing valves..." is being misapplied in 2021 IPC 607.1.2. The title of 607.1.2 is Tempered Water... Tempered water being 85F-100F per IPC definition. ASSE 1017 mixing valves may be adjusted to an outlet temperature of 180F and should not be listed with standards for tempered water. Additionally, to kill legionella in hot water distribution systems, ASSE1017 mixing valves are often used and set at 160F. An ASSE 1017 mixing valve misapplied for tempered water could result in 3<sup>rd</sup> degree burns, even death. Please see PDF ASSE 1017 highlight.

To continue. Proposed Michigan rule 727c is a modified 2021 IPC 607.1.2 and contains as outlined in the above 607.1.2 statement. So, for this reason, I oppose the rule.

Additionally proposed Michigan rule 727c has added a #5 to the list, "emergency eye wash... 60F-100F... conforming to ASSE 1071." This code requirement already exists in 2021 IPC section 411. My concern is that adding it to rule 727c, which contains ASSE 1017 mixing valves that can be set at 180F, could cause confusion, misapplication and hot water scald burns.

I am Dave Watson, a Michigan based representative for manufacturers producing valves to ASSE standards.

Respectfully,  
Dave Waston

Thank you,  
Dave Watson  
Dave Watson Associates  
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**ASSE Standard #1082-2018**

ASSE Board Approved: October 2018

ANSI Approved: October 2018

ICS Code: 91 140 65

Dave Watson

## **ASSE International**

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Performance Requirements for

# **Water Heaters with Integral Temperature Control Devices for Hot Water Distribution Systems**

*An American National Standard*

# Foreword

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This foreword shall not be considered a part of the standard; however, it is offered to provide background information.

ASSE standards are developed in the interest of consumer safety. ASSE International considers product performance standards to be of great value in the development of improved plumbing systems.

There are heater products in the market as of this standard's initial revision that are able to control their output temperatures to an accuracy equivalent to ASSE 1017. Current model codes still regard these products as heaters and therefore incapable of such control, thereby requiring a redundant mixing valve downstream. Having two such controllers in series can result in inconsistent temperatures further on at point-of-use. This standard was written in order to streamline plumbing system design and to ensure that the output temperatures from water heaters are as consistent as currently required by model codes.

These devices are not intended for end use applications without point-of-use control valves, as specified by ASSE 1016 / ASME A112.1016 / CSA B125.16, ASSE 1069, ASSE 1070 / ASME A112.1070 / CSA B125.70, or other appropriate standards.

This standard uses a +70 °F (+39 °C) temperature rise because the U.S. Department of Energy defines their temperature rise from 70 °F to 140 °F (21.1 °C to 60 °C) for commercial products, and from 58 ± 2°F to 125 ± 5°F (14.4 °C ± 1.1 °C to 51.7 ± 2.8 °C) for residential products.

As an example, if a 1082 device's maximum design output is 200 kBTU/hr (58.6 kW), for a +70 °F (+39 °C) temperature rise, its maximum design flow rate is 5.6 GPM (21.2 L/min), and the temperature output tolerance that it needs to meet is ±5 °F (2.8 °C) per Table 2.

Recognition is made of the time volunteered by members of this working group and of the support of manufacturers who also participated in meetings for this standard.

The working group that developed this standard was set up within the framework of the Product Standards Committee of ASSE International.

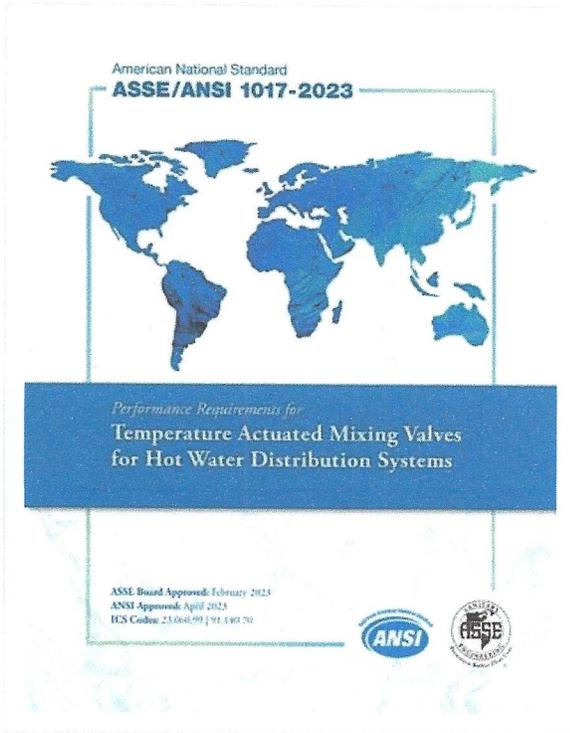
This standard does not imply ASSE International's endorsement of a product which conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

It is recommended that these devices be installed in accordance with the installation instructions of the manufacturers and consistent with local codes. Where there is a conflict with codes and installation instructions, the more stringent requirements should be followed. These devices should be installed by properly licensed, qualified and properly trained professionals.

This standard was promulgated in accordance with ASSE's procedures as accredited by the American National Standards Institute (ANSI).

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## ASSE/ANSI 1017-2023

### Performance Requirements For Temperature Actuated Mixing Valves For Hot Water Distribution Systems

Temperature Actuated Mixing Valves for Hot Water Distribution Systems are used for controlling water temperatures in hot water systems and shall be installed at the hot water source. They are not intended for point of use temperature limiting, control or end use applications including emergency eyewash and shower equipment. These devices consist of a hot water inlet connection, a cold water inlet connection, a mixed water outlet connection, a thermal element or thermostatic sensor and a means for adjusting the mixed water outlet temperature. These devices can be either mechanically actuated or electronically controlled device.



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September 8, 2023

**Public Hearing**

**Administrative Rules for Construction Codes – Part 7 Plumbing Code**

**Rule Set 2022-56 LR**

Michigan Historical Center  
702 W. Kalamazoo Street  
Lansing, MI 48915

City of Novi  
Department of Public Works  
Water & Sewer Division  
Kevin Roby  
Cross Connection Specialist  
Email: [kroby@cityofnovi.org](mailto:kroby@cityofnovi.org)  
248-735-5652

**Public Comment: Oppose Current Rule Change as Follows**

**Page 4**

***R 408.30725h Testing (first sentence)***

***Rule 725h Section 312.10.2***

*“shall be tested at time of installation, immediately after repairs or at the time of relocation.”*

I am opposing this code change by the removal of “and tested at least annually” for the following reasons.

This code change contradicts section 102.3 Maintenance that requires plumbing systems, materials, and appurtenances, both existing and new to be maintained in proper operating condition.

The departure from annual testing has a direct negative impact on the health, safety, and welfare of the public. These assemblies are mechanical in nature and subject to failure. Testing programs throughout the state have documented failed test results throughout the state and across the country.

According to the ICC website, the 2021 edition of the International Plumbing Code, annual testing is required.

These assemblies isolate private plumbing systems from the occupants of the building and the water distribution system. Private plumbing systems include sterilization equipment for surgical instruments in a hospital setting, glycol fire systems for fire protection systems and MRI cooling systems, cooling towers,

**Page 6**

***R 408.30727a Location of Full-open valves***

***Rule 727a Section 606.1 (3)***

***"On the discharge side of every water meter."***

I am opposing this code change by only stating on the "On the discharge side"

Every water meter must have shutoff valves on both the upstream and downstream side of the water meter for maintenance.

**From:** Lisa Reiheld <lreiheld@iccsafe.org>  
**Sent:** Friday, September 8, 2023 7:00 AM  
**To:** LARA-BCC-Rules  
**Subject:** Comments on Proposed Rules Construction Codes - Part 7 Plumbing  
**Attachments:** DraftRule Construction Codes - Part 7 L Reiheld Comments.doc

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Hello,

I am an ICC Staff member in the ICC Plumbing, Mechanical, and Fuel Gas Technical Resources group and cover the state of Michigan as part of my area of responsibility. I am happy to hear that you are moving forward to the adoption of the 2021 IPC as the Michigan Plumbing Code.

I have reviewed the Proposed Rules for Part 7 Plumbing, that I downloaded as Word document from the LARA website, and have noted several changes that are primarily editorial in nature to these rules. I believe that these suggested edits and corrections will improve the document and make this document match the 2021 IPC document, without changing the intent of any modifications that Michigan is attempting to make.

If I need to submit these comments other than via the attached marked up Word document, please let me know.

My group at ICC often provides education for building officials within a state on the significant changes from one code edition to the next, incorporating any state adopted amendments as well. Please let me know if that would be of any value to you as you go forward with your adoption of the 2021 version of the IPC as the Michigan Plumbing Code.

Thanks in advance for your consideration of the suggested edits,

Lisa

**Lisa Reiheld**

*International Code Council*

*Director, PMG Technical Resources*

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My name is William Hordyk, and I am a registered Building Official in the State of Michigan serving the community of Grand Rapids. I also hold 20 national certifications with the International Code Council, including that of Master Code Professional.

I present these findings on behalf of myself and the Metro Building Inspectors Association of Greater Grand Rapids, a group of over 130 registered building officials and inspectors performing their duties for over 70 delegated authorities in the state of Michigan.

We are concerned about the proposed rules for the 2021 Michigan Plumbing Code. We believe that there has been insufficient effort put forth by the bureau in reviewing the existing administrative rules in context of the 2021 code, not by lack of trying from the individuals tasked, but by the lack of leadership in recognizing the enormity of the task.

Specifically, I have found that:

- Multiple existing rules reference code sections that do not exist in the 2021 code.
- Some proposed and existing rules reference unassociated code sections.
- Many rules propose the exact language of the 2021 model code.

We are also concerned about the bureau's apparent intent to strike model code language that has existed from the conception of the Stille DeRossett-Hale Single State Construction Act. Code language that has not changed but is now deemed to contradict the Act.

We believe that the bureau should not be in the business of overruling the will of the legislators. If the writers of PA 230 objected to the model code language available to them when crafting the legislation, they would have written such language out within the Act.

Finally, I am concerned about the multiple instances where new administrative rules are proposed with exacting language of the 2021 International Plumbing Code. As rule 701 proposes to adopt the 2021 IPC, we see no reason for additional rules to specifically adopt individual sections of the model code.

Following this are 5 pages of specific errors within the proposed rules.

We urge you to reconsider the proposed rules and to ensure that they are consistent with the Stille DeRossett-Hale Single State Construction Act and the language of the model code.

Thank you for your time.

## Rule 701

- It is proposed to except section 104.8 and 104.8.1. We would request a reasoning to why the bureau is removing protections for the Code Official from the model code language.
- It is proposed to strike section 108.2.5, 108.2.5.1 and 108.2.5.2. No such sections exist in the 2021 International Plumbing Code. The sections should be removed from the excepting statement.
- It is proposed to except sections 114.1 to 114.4. While section aa4.1 does exist in the 2021 International Plumbing Code, Sections 114.2 to 114.4 do not. The excepting statement should only identify section 114.1.
- Sections 404.2 and 404.3 provide coordination with the accessibility standard and should be removed from the excepted sections to remain in the code.
- Section 712.3.3.1 and 712.3.3.2 provide for appropriate materials to be used with sump pumps and should be removed from the excepted sections to remain in the code.
- Section 802.4.3.1 is an acceptable alternative for compliance of a laundry tray and standpipe. It should be allowed to remain in the code by striking reference to it from the excepting language.
- Chapter 13 and Chapter 14 have been stricken from the model code. Neither section is a requirement for construction but do provide requirements if the applicable systems are chosen to be utilized. The related systems would be great opportunities for conservation of water and should remain as options. 1301 to 1304.4.2 and 1401 to 1403.2.1 should be stricken from the excepting language.

## Rule 711

- Within Section 101.2; It is proposed to strike the term "townhouse" and replace with the phrases "such as townhouse". The term "townhouse" is a defined term with the I-codes and has specific placement within the Residential Code to alter the reference will only cause confusion in how the codes are enforced.
- Within section 101.3; The purpose of the Stille-DeRossett-Hale single state construction code act should not be redefined. The purpose and precedence of PA 230 is appropriately written into the Act itself and does not require substantiation with the plumbing code Section 101.3 should not add "and the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL125.1501 to 125.1531" to the purpose of the plumbing code. I take no issue with the text replacing the term "act".

## Rule 723

- The Existing amendment is the current language of the 2021 Model Code. Rule 723 Should be rescinded.

## Rule 725d

- The proposed language is that of the 2021 model code. There is no need for Rule 725d as rule 701 adopts the language. Rule 725d should not be added to the administrative code.

## Rule 725e

- The proposed language is exactly that of the 2018 model code. The 2021 model code language more accurately addresses hydromechanical grease interceptors. Rule 725e should not be added to the administrative code.

#### Rule 725f

- The proposed language is exactly that of the 2021 model code. There is no need for Rule 725f as rule 701 adopts the language. Rule 725f should not be added to the administrative code.

#### Rule 725h

- The proposed language is exactly that of the 2018 model code. The 2021 language adds a useful standard for test gauges. Rule 725h should not be added to the administrative code.

#### Rule 726a

- The proposed rule recreates an existing table from the model code. As an equal alternative to placing duplicative language from the model code into Michigan administrative rules, consider the following language with the exacting result:  
**“ The following material and standard is added to table 702.4 of the code: Galvanized steel pipe, ASTM A53”**

#### Rule 727

- The proposed table is exactly that of the 2021 model code. There is no need for Rule 727 as rule 701 adopts the table. Rule 727 should be rescinded from the administrative code.

#### Rule 727a

- The proposed language is that of the 2021 model code, other than the word “space” being added in conjunction with “tenant”. To use the term ‘space’ in the manner suggested could be interpreted to mean a full-open valve is required for each and every room. There is no need for Rule 727a as rule 701 adopts the appropriate language. Rule 727a should not be added to the administrative code.

#### Rule 727b

- The proposed language is that of the 2018 model code. At committee, the benefit of labeling was found to not be cost effective and removed from the 2021 International Plumbing Code. Rule 727b should not be added to the administrative code.

#### Rule 729

- The amendment of the existing rule recreates table 605.3 from the model code. The proposed change to the table exists within the 2021 model code and is unnecessary.
- The exiting rule proports to amend section 609.3. The language given is exacting to the language of the 2021 model code and in unnecessary.
- Rule 729 should be rescinded.

#### Rule 729a

- The proposed rule recreates an existing table from the model code. As an equal alternative to placing duplicative language from the model code into Michigan administrative rules, consider the following language with the exacting result:  
**“ The following material and standard is added to table 605.5 of the code: Galvanized steel pipe, ASTM A53”**

#### Rule 729b

- The proposed rule recreates an existing table from the model code. As an equal alternative to placing duplicative language from the model code into Michigan administrative rules, consider the following language with the exacting result:  
**“ The following material and standard is added to table 605.8 of the code: Galvanized steel pipe, ASTM A53”**

#### Rule 732

- The proposed language is exactly that of the 2021 model code. There is no need for Rule 732 as rule 701 adopts the language. Rule 732 should not be added to the administrative code.

#### Rule 736

- The proposed language is that of the 2021 model code with only an unneeded reference to section 607.1.2. There is no need for Rule 736 as rule 701 adopts the language. Rule 736 should not be added to the administrative code.

#### Rule 741c

- The existing administrative rule should be rescinded as the language would dis-allow the use of a NFPA 13D suppression system which is allowed per the Michigan Residential and Building codes. The language of the model code agrees with the administrative rule while allowing for a domestic suppression system (13D)

#### Rule 753b

- The proposed language is proports to add a section to the model code. The language is **amending** a code section.

#### Rule 754a and 754b

- The existing rules seem to expand the scope of regulation from a defined climate to the entire State of Michigan. To be clear, yes, the entire state would fall within the stated climate standard. There is no need to continue changing the model code language and to avoid a proven track record in reviewing code changes, it would be better to resend the code sections as the change is inconsequential.

#### Rule 755

- The amendment of the existing rule recreates table 1102.4 from the model code. The proposed change to the table exists within the 2021 model code and is unnecessary. Furthermore errors remain in the existing text of the rule and it appears intended correction of the table was misapplied.

#### Rule 755a

- The proposed language is that of the 2021 model code. There is no need for Rule 755a as rule 701 adopts the language. Rule 755a should not be added to the administrative code.

#### Rule 757

- The existing administrative rule attempts to add section 708.3 (in actuality, the ICC correctly writes the sections as 708.2) But even so the language exists as section 708 of the Model Code. Rule 757 should be rescinded.

#### Rule 757a

- The existing rule amends the model code to state the requirement for “approved” materials. However, Rule 701 strikes what is to be considered “approved”. Cedar shakes are an “approved” material but would not be suitable for discharge piping. Rule 757a should be rescinded.

#### Rule 758

- The proposed change to 403.1.1 is the language of the 2021 model code. There is no need for restating the language as it is adopted by Rule 701
- The proposed changes to the text of table 403.1 serves only to align the Michigan Administrative Rule with the exact text of the 2021 model code. Rather than continuing to modify the model code by rule, the amending of table 403.1 should be struck from the rule to allow the model code table to remain unchanged.
- The proposed amendments to the footnotes of table 403.1 should be rescinded. The only change proposed other than to align with the 2021 model code includes a change to substitute the term “individuals” for the term “persons”. The term “persons” is a defined term within the entirety of the 2021 model codes. To arbitrarily substitute a synonym here will only serve to add confusion.
- Rule 758 should be rescinded.

#### Rule 758a

- The proposed addition would actually be an amendment to existing language. The language of the 2021 model code is clearer than that proposed. The proposed language does not add or subtract from that of the model. Rule 758a should not be added.

#### Rule 758b

- Rule 736 proports to add the same section that also exists as the exact language of the 2021 model code. Rule 758b should not be added.

#### Rule 763a

- There is an ongoing error and omission that is being corrected by the ICC when publishing the MPC. The text of this administrative code is to modify 416.5, the same-named code section is 419.5. ICC has been correcting the rule to reference the appropriate section. The amendment to the model code language is inconsequential to the enforcement of the code. The administrative rule 763a should be rescinded.

#### Rule 785

- The Model code section proposed to be modified contains the state language, is clearer, and has been improved from the period in which the existing rule was written. The administrative rule to amend the model code should be rescinded to allow the model code language to remain unchanged.

#### Rule 791

- "Act" should not be defined in the plumbing code. Nowhere does the model code address an "act" as in a Public Act. Defining act here could add confusion where the model code requires and individual to perform and act, and now we have a defined term that douse not match the intended meaning of the word. There are deferent Public Acts address by rule change, not solely PA 233, and everywhere an act is referenced the rule calls out which act specifically by name. Act is defined in PA 233, there is no need to redefine it in code language.

#### Rule 792

- 802.1.8 Does not exist within the 2021 IPC. Rule 792 should be rescinded.