

Plumbing
PART 1 OF 1
WITH COMMENTS
Proposed Code Modifications

This document created by the Florida Department of Business and Professional Regulation -
850-487-1824

Total Mods for **Plumbing** in **Approved as Submitted**: 2

Total Mods for report: 12

Sub Code: Fuel Gas

Date Submitted	7/18/2012	Section	• 401.10 Third Party Testing	Proponent	Joseph Eysie
Chapter	4	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** Yes

Related Modifications

5248

Summary of Modification

Remove the language from the 2012 IFGC which requires that piping, tubing and fittings shall either be tested by an approved third party agency or certified by an approved third party certification agency

Rationale

If the proposed Modification is not approved, the code will discriminate against steel pipe in fuel gas systems.

Based on our research and findings the 3rd party certification and testing criteria for steel pipe used in fuel gas systems does not currently exist and this would preclude steel pipe from being utilized in fuel gas systems in Florida.

If the proposed Modification is not approved, the code would preclude contractors from utilizing steel pipe for specific applications, where steel pipe is more cost effective or preferred. Steel pipe is field tested and has proven to be effective and safe.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposed Modification should have no impact relative to enforcement of code

Impact to building and property owners relative to cost of compliance with code

If the proposed Modification is not approved, the code may increase piping material costs by excluding steel pipe from gas systems, which would be passed on to property owners.

Impact to industry relative to the cost of compliance with code

If the proposed Modification is not approved, the code may increase piping material costs by excluding steel pipe from gas systems.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged. Steel pipe is field tested and has proven to be effective and safe.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged and ensure the availability of steel pipe as an available product in fuel gas systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged. If the proposed modification is rejected then steel pipe for fuel gas installations would be prohibited.

Does not degrade the effectiveness of the code

No, the proposed modification would not degrade the effectiveness of the code and will ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged.

Is the proposed code modification part of a prior code version? No

5249-A2

Proponent	Joseph Eysie	Submitted	12/14/2012	Attachments	Yes
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Rationale

If the proposed Modification is not approved, the code will discriminate against steel pipe in fuel gas systems. Based on our research and findings the 3rd party certification and testing criteria for steel pipe used in fuel gas systems does not currently exist and this would preclude steel pipe from being utilized in fuel gas systems in Florida. If the proposed Modification is not approved, the code would preclude contractors from utilizing steel pipe for specific applications, , where steel pipe is more cost effective or preferred. Steel pipe is field tested and has proven to be effective and safe.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposed Modification should have no impact relative to enforcement of code.

Impact to building and property owners relative to cost of compliance with code

If the proposed Modification is not approved, the code may increase piping material costs by excluding steel pipe from gas systems, which would be passed on to property owners.

Impact to industry relative to the cost of compliance with code

If the proposed Modification is not approved, the code may increase piping material costs by excluding steel pipe from gas systems.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged. Steel pipe is field tested and has proven to be effective and safe.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged and ensure the availability of steel pipe as an available product in fuel gas systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged. If the proposed modification is rejected then steel pipe for fuel gas installations would be prohibited.

Does not degrade the effectiveness of the code

No, the proposed modification would not degrade the effectiveness of the code and will ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged.

Is the proposed code modification part of a prior code version? No

1st Comment Period History

08/09/2012 - 09/23/2012

P5249-G1

Proponent	BOAF CDC	Submitted	9/23/2012	Attachments	No
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Comment:

Steel pipe can still be accepted under 104.11 FBC as an alternative material. This is not a Florida specific problem and need to be addressed in the I-Codes.

The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. Per FS 553.73 (7) (g)

The proposed amendment was does not appear to have been submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process.

~~401.10 Third party testing and certification.~~ All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with [Section 401.9](#). Piping, tubing and fittings shall either be tested by an approved third party testing agency or certified by an approved *third party certification agency*.

An identical modification needs to be made in G2412.10 Third-party testing and certification, to maintain consistency within the fuel gas code areas of the Florida Building Code. These identical modifications will provide property owners and fuel gas installers with a variety of piping and associated fittings needed in installations and maintenance of fuel gas systems. This alternate language proposed requests that the original modification that was approved as submitted by the Plumbing TAC be extended to the Residential Code as well:

2012 ICC Fuel Gas Code

~~401.10 Third-party testing and certification. All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with Section 401.9. Piping, tubing and fittings shall either be tested by an approved third-party testing agency or certified by an approved *third-party certification agency*.~~

2012 ICC Residential Code

~~G2412.10- 401.10 Third-party testing and certification. All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with Section 401.9. Piping, tubing and fittings shall either be tested by an approved third-party testing agency or certified by an approved *third-party certification agency*.~~

Modification #: P5249

An identical modification needs to be made in G2412.10 Third-party testing and certification, to maintain consistency within the fuel gas code areas of the Florida Building Code. These identical modifications will provide property owners and fuel gas installers with a variety of piping and associated fittings needed in installations and maintenance of fuel gas systems. This alternate language proposed requests that the original modification that was approved as submitted by the Plumbing TAC be extended to the Residential Code as well:

2012 ICC Fuel Gas Code

~~401.10 Third party testing and certification. All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with [Section 401.9](#). Piping, tubing and fittings shall either be tested by an approved third party testing agency or certified by an approved *third party certification agency*.~~

2012 ICC Residential Code

~~G2412.10- 401.10 Third party testing and certification. All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with [Section 401.9](#). Piping, tubing and fittings shall either be tested by an approved third party testing agency or certified by an approved *third party certification agency*.~~

Date Submitted 7/18/2012	Section 401.09 Identification	Proponent Joseph Eysie
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** Yes

Related Modifications

Summary of Modification

Provide alternative language to Section 401.9 of the IFGC

Rationale

If the proposed language within the text of the Modification is not approved, the code will discriminate against certain fittings in fuel gas systems that are currently unable to be marked.

Given the large assortment of pipe lengths, fittings, and pipe tubing associated with installation, requiring Manufacturer Identification is not be feasible for all fittings.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposed Modification should have no impact relative to enforcement of code

Impact to building and property owners relative to cost of compliance with code

If the proposed Modification is not adopted, the code may increase piping material costs.

Impact to industry relative to the cost of compliance with code

If the proposed Modification is not adopted, the code may increase piping material costs.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code remain unchanged

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code remain unchanged and would ensure the availability of pipe fittings.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged.

Does not degrade the effectiveness of the code

No, the proposed modification would not degrade the effectiveness of the code and will ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged.

Is the proposed code modification part of a prior code version? No

5248-A2

Proponent	Joseph Eysie	Submitted	12/14/2012	Attachments	Yes
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Rationale

If the proposed language within the text of the Modification is not approved, the code will discriminate against certain fittings in fuel gas systems that are currently unable to be marked.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposed Modification should have no impact relative to enforcement of code

Impact to building and property owners relative to cost of compliance with code

If the proposed Modification is not adopted, the code may increase piping material costs.

Impact to industry relative to the cost of compliance with code

If the proposed Modification is not adopted, the code may increase piping material costs.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code remain unchanged

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code remain unchanged and would ensure the availability of pipe fittings

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the proposed modification would ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged.

Does not degrade the effectiveness of the code

No, the proposed modification would not degrade the effectiveness of the code and will ensure that the gas pipe requirements within the 2010 Florida Building Code would remain unchanged

Is the proposed code modification part of a prior code version? No

1st Comment Period History

08/09/2012 - 09/23/2012

P5248-G1

Proponent	BOAF CDC	Submitted	9/23/2012	Attachments	No
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Comment:

This change was submitted to the IFGC. FG8 -12
BOAF supports this change.

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

Exception: The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation

Modification #: P5248

An identical modification to this original modification needs to be made in G2412.9 Identification, to maintain consistency within the fuel gas code areas of the Florida Building Code. These identical modifications will provide property owners and fuel gas installers with a variety of piping and associated fittings needed in installations and maintenance of fuel gas systems. This alternate language proposed requests that the original modification that was approved as submitted by the Plumbing TAC be extended to the Residential Code as well:

2012 ICC Fuel Gas Code

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

Exception: The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

2012 ICC Residential Code

G2412.9 (401.9) Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

Exception: The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

Total Mods for **Plumbing** in **No Affirmative Recommendation with a Second**: 10

Total Mods for report: 12

Sub Code: Fuel Gas

Date Submitted 7/3/2012	Section 310.1	Proponent Robert Torbin
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation No Affirmative Recommendation with a Second		
Commission Action Pending Review		

Comments

General Comments Yes	Alternate Language No
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Related Modifications

Summary of Modification

Delete current 310.1 and 310.1.1 and replace with: All metal gas piping and tubing shall be bonded to the grounding electrode system of the premises. The bonding conductor shall not be smaller than 6 AWG copper wire or equivalent.

Rationale

All metallic gas piping systems should be bonded similar to the requirements for bonding metal water piping and exposed structural metal, and for the same reasons. The metallic gas piping (steel, copper or CSST) is an excellent conductor, and thus, needs to be bonded for safety. The underground fuel gas service piping to a dwelling or small commercial building is commonly nonmetallic or is electrically isolated from the metallic building piping. This is similar to the plastic water pipe supply line to smaller buildings or structures. Yet, metal water piping in these buildings or structures is required to be bonded with a "full size" conductor even though not connected to a water pipe grounding electrode. Many residential, commercial and industrial buildings contain as much or more metallic gas piping as metal water piping that is not being used as a grounding electrode. Metallic gas piping is just as conductive and poses an identical risk of electrical shock as water piping, and, therefore, should be bonded in the same manner.

The proposed type of bonding for metal gas piping is commonly practiced in North America and around the globe. The Canadian Electrical Code (CSA C22.1) requires all metallic gas piping to be bonded (with a 6 AWG conductor) directly to the grounding electrode system as stated in Section 10-406). US homes that install lightning protection systems in accordance with NFPA 780 require the bonding of any and all metallic gas piping systems with at least a 6 AWG copper conductor. The metal gas piping systems in many buildings often consists of hundreds of feet of piping, and an equipment grounding conductor of 12 or 14 AWG will not adequately bond the system to safely de-energize it in a ground fault or over-voltage condition. The gas piping contains flammable gases that can create hazardous conditions leading to fires and explosions.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There will be minimal impact to the local code enforcement agency as electrical inspection of bonding is already required for such systems as the copper water piping. There are no special bonding requirements for gas piping and the inspection can be performed at the same time as these other systems.

Impact to building and property owners relative to cost of compliance with code

There will be a minimal cost impact to property owners relative to the cost of code compliance. Bonding of gas piping will require labor time and materials, and is estimated at less than \$20 for the clamps and bonding wire and 0.5 labor hours estimated at \$25.

Impact to industry relative to the cost of compliance with code

There will be no impact on the industry relative to the cost of compliance with the code change as this work would be fully accounted for at the time of construction, and there are no associated operational costs as bonding is a passive protective measure.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

There are numerous lightning induced residential fires each year and bonding of all metallic systems is an important element of lightning protection (see NEC 250.104B and 250.106 and NFPA 780). In areas that require full bonding of gas piping systems, the number of lightning fires has been reduced.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Bonding of CSST gas piping and metallic water piping are already required and expanding the bonding to all gas piping improves the level of protection for consumers by moving towards an equipotential state without requiring the installation of a lightning protection system.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposed change does not alter or discriminate against any code approved gas piping material, and only seeks to elevate the level of protection to the whole house based on known problems with lightning induced arcing from non-bonded metallic systems.

Does not degrade the effectiveness of the code

The code already addresses the need for protection against electrical insults and the proposed change makes the code more effective by expanding the coverage for this requirement.

Is the proposed code modification part of a prior code version? No

Proponent Robert Torbin **Submitted** 12/13/2012 **Attachments** No

Comment:

P4924-G3

The rationale for rejection of this proposal was given as "No Florida specific need". However, Florida is the lightning capital of the United States with the highest ranking of lightning strikes per square mile of all 50 states. There are thousands of homes in Florida that are affected every year by both direct and indirect lightning strikes that cause millions of dollars in damages (from loss of the home computer to the loss of the entire home). Current language for bonding of gas piping in the electrical code only covers damage from a ground fault in the home wiring system and does not address lightning at all. The NFPA Standards Council has given the responsibility for setting bonding requirements on gas piping systems to the fuel gas code committee. Therefore, revised coverage in the fuel gas code is required to update the requirements for bonding to include all gas piping and not just CSST piping systems (as included in the 2012 IFGC). Lightning does not discriminate and it affects all gas piping systems including copper tubing and steel piping systems with flexible appliance connectors. For years, it has been conventional practice in Florida to bond all gas piping directly to the grounding electrode system despite the lack of any specific coverage in either the electrical or gas codes. It is just old-fashion common sense to do this. This proposal addresses the need to formalize the bonding requirement. Without this bonding requirement, all new homes built in Florida will be subject to potential (and unnecessary) damage from lightning that can be prevented with the simple (and inexpensive) installation of a bonding clamp and a #6 conductor. This type of bonding for all gas piping is currently required throughout the industrialized world except the US. This is Florida specific because Florida has the need for this type of protection beyond all other states. Please reconsider this proposal for approval.

1st Comment Period History

08/09/2012 - 09/23/2012

Proponent Robert Torbin **Submitted** 9/21/2012 **Attachments** No

Comment:

P4924-G1

Given that this proposal requires bonding of all gas piping regardless of material, then Section 309.1 Grounding is redundant and unnecessary. Therefore, delete Section 309.1 if proposal is accepted.

1st Comment Period History

08/09/2012 - 09/23/2012

Proponent BOAF CDC **Submitted** 9/23/2012 **Attachments** No

Comment:

P4924-G2

This code change is unnecessary as the provisions contained in the proposed amendment are adequately addressed in the applicable international code. Per FS 553.73 (7) (g)

The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. Per FS 553.73 (7) (g)

The proposed amendment was does not appear to have been submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process.

SECTION 310 (IFGS) ELECTRICAL BONDING

310.1 Metal pipe and tubing ~~other than CSST.~~

Each above-ground portion of a gas piping system installed in, or attached to a building or structure, ~~other than corrugated stainless steel tubing (CSST) that is likely to become energized~~ shall be electrically continuous and bonded to an effective ground-fault current path. ~~Gas piping other than CSST shall be considered to be bonded where it is connected to appliances that are connected to the equipment grounding conductor of the circuit supplying that appliance.~~

310.1.1 CSST:

~~Corrugated stainless steel tubing (CSST)~~ All gas piping systems shall be bonded to the electrical service grounding electrode system. The bonding jumper shall connect to a metallic pipe or fitting between the point of delivery and the first downstream CSST fitting. The bonding conductor and clamp shall be connected in an accessible location to a metallic pipe or fitting downstream of the point of delivery. The bonding ~~jumper~~ conductor shall be not smaller than 6 AWG copper wire or equivalent. ~~Gas piping systems that contain one or more segments of CSST shall be bonded in accordance with this section.~~

Date Submitted	7/5/2012	Section	EXIT TERMINALS OF MECHANICAL	Proponent	Suzanne Davis
Chapter	3003	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	No
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Related Modifications

Summary of Modification

Update section Appendix C IFGC to implement FBC approved plan for 2013 Code.

Rationale

To be consistent with Commission policies with regard to treatment of appendices. Commission policy has been to reserve the majority of the appendices in the I-Codes.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to building and property owners relative to cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to industry relative to the cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Carried over from previous field tested code. Proven to be effective.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Carried over from previous field tested code. Proven to be effective.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Carried over from previous field tested code. Proven to be effective.
- Does not degrade the effectiveness of the code**
Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?
YES

The provisions contained in the proposed amendment are addressed in the applicable international code?
NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?
OTHER

Explanation of Choice

To be consistent with Commission policies with regard to treatment of appendices. Commission policy has been to reserve the majority of the appendices in the I-Codes.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?
NO

2nd Comment Period10/31/2012 - 12/14/2012

Proponent	Ken Cureton	Submitted	12/14/2012	Attachments	No
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Comment:

Mod P4953 recieved a "NAR" vote. Staff requests that the TAC support the original MOD due to the fact that retaining this appendix is not consistent with Florida Statutes.

P4953-G2**1st Comment Period History**08/09/2012 - 09/23/2012

Proponent	Ken Cureton	Submitted	9/21/2012	Attachments	No
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Comment:

The Commission has no authority to adopt an appendix as an option for local adoption.

P4953-G1

RESERVED (not to be adopted or utilized)

Date Submitted	7/5/2012	Section	RECOMMENDED PROCEDURE	Proponent	Suzanne Davis
Chapter	3004	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	No
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Related Modifications

Summary of Modification

Update section Appendix D IFGC to implement FBC approved plan for 2013 Code.

Rationale

To be consistent with Commission policies with regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to building and property owners relative to cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to industry relative to the cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Carried over from previous field tested code. Proven to be effective.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Carried over from previous field tested code. Proven to be effective.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Carried over from previous field tested code. Proven to be effective.
- Does not degrade the effectiveness of the code**
Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?
YES

The provisions contained in the proposed amendment are addressed in the applicable international code?
NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?
OTHER

Explanation of Choice

To be consistent with Commission policies with regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?
NO

2nd Comment Period10/31/2012 - 12/14/2012

Proponent	Ken Cureton	Submitted	12/14/2012	Attachments	No
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Comment:

Mod P4954 recieved a "NAR" vote. Staff requests that the TAC support the original MOD due to the fact that retaining this appendix is not consistent with Florida Statutes.

P4954-G2**1st Comment Period History**08/09/2012 - 09/23/2012

Proponent	Ken Cureton	Submitted	9/21/2012	Attachments	No
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Comment:

The Commission has no authority to adopt an appendix as an option for local adoption.

P4954-G1

RESERVED (not to be adopted or utilized)

Date Submitted 7/26/2012	Section M309.3	Proponent Rebecca Quinn obo DEM
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation	Pending Review	

Comments

General Comments Yes	Alternate Language No
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Related Modifications

5138, 5271, 5679

Summary of Modification

Limits application of Coastal A Zone requirements only if the CAZ is delineated on a map or designated by the community. Submitted as public comment at suggestion of IBC Structural Committee (S102-12).

Rationale

Consistency with same changes in FBC, Building. The IBC Structural Committee viewed S102-12 favorably, but requested modification of language in the definitions of "Coastal A Zone" and "Limit of Moderate Wave Action." Those changes have been approved by a ballot by the ASCE 24 committee.

Currently the FBC, Building, by reference to ASCE 24-05, requires the designer to determine if Coastal A Zone conditions are present. And ASCE 24 already requires buildings in Coastal A Zones to meet the same requirements as Coastal High Hazard Areas (Zone V). The next edition of ASCE 24 is nearing its final draft; the next edition will specify that the Coastal A Zone is recognized only if the Limit of Moderate Wave Action is shown on the map, or if the CAZ is otherwise designated by the community (a small number of Florida communities do this). Thus, designers and communities will no longer that to do site-by-site evaluations to determine wave conditions in areas outside of the Zone V.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Facilitates enforcement and compliance by clarifying where the CAZ requirements apply.
- Impact to building and property owners relative to cost of compliance with code**
Facilitates enforcement and compliance by clarifying where the CAZ requirements apply.
- Impact to industry relative to the cost of compliance with code**
Facilitates enforcement and compliance by clarifying where the CAZ requirements apply.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Recognizes moderate wave conditions only where such conditions are identified on a map or otherwise designated.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Recognizes moderate wave conditions only where such conditions are identified on a map or otherwise designated.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Doesn't affect material specifications.
- Does not degrade the effectiveness of the code**
Recognizes moderate wave conditions only where such conditions are identified on a map or otherwise designated.

Is the proposed code modification part of a prior code version? No

2nd Comment Period 10/31/2012 - 12/14/2012

Proponent Joy Duperault	Submitted 12/10/2012	Attachments No
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Comment:

This proposal combines with SP5683. The resulting section should appear as follows:
 "P309.3 Coastal High hazard areas and coastal A Zones. Structures located in coastal high hazard areas and coastal A zones shall meet the requirements of Section 309.2. The plumbing systems pipes and fixtures shall not be mounted on or penetrate through walls intended to break away under flood loads."

SP5684-G2

Proponent	Submitted	Attachments
BOAF CDC	9/23/2012	No

SP5684-G1

Comment:

This change is premature, Coastal A Zones are designated by the community and are not part of ASCE 24 2005, the next edition of ASCE 24 has the requirements in it.

The coastal A Zone will not be in the 2015 I-Codes unless the standard is completed before the final action hearing, and then it will come in in the next cycle as the base code.

The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. Per FS 553.73 (7) (g)

This change was submitted to the I-Code process

P309.3 Flood hazard areas subject to high-velocity wave action and coastal A zones. Structures located in flood hazard areas subject to high-velocity wave action and coastal A zones shall meet the requirements of Section 309.2. The plumbing systems, pipes and fixtures shall not be mounted on or penetrate through walls intended to break away under flood loads.

Total Mods for **Special Occupancy** in **No Affirmative Recommendation with a Second: 5**

Total Mods for report: 9

Sub Code: Building

Date Submitted	7/9/2012	Section	101, 102	Proponent	Suzanne Davis
Chapter	1	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	Yes
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Related Modifications**Summary of Modification**

Update section 101-110 Plumbing to implement FBC approved plan for 2013 code

Rationale

To continue Commission policy in formatting Chapter 1 and to implement the FBC process for the 2013 FBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

To continue Commission policy in formatting Chapter 1 and to implement the FBC process for the 2013 FBC.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

Alternate Language

2nd Comment Period

10/31/2012 - 12/14/2012

5038-A2

Proponent BOAF CDC Submitted 12/13/2012 Attachments Yes

Rationale

Provides a supplement based on the 2012 IPC and the Plumbing TAC recommendations with some modifications.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Provides consistency for design and specifically show the Florida requirements to the IPC

Impact to building and property owners relative to cost of compliance with code

Provides consistency for design and specifically show the Florida requirements to the IPC

Impact to industry relative to the cost of compliance with code

Provides consistency for design and specifically show the Florida requirements to the IPC

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, allows for providing the required statutory requirements and standardizes the code requirements for design.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, allows for providing the required statutory requirements and standardizes the code requirements for design.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the same materials that were allowed prior to the will still be allowed.

Does not degrade the effectiveness of the code

No, helps standardize the code and allow for staying current with the base code as it is developed and updated.

Is the proposed code modification part of a prior code version? No

Alternate Language

1st Comment Period History

08/09/2012 - 09/23/2012

5038-A1

Proponent BOAF CDC Submitted 9/23/2012 Attachments Yes

Rationale

This is a compilation of the changes show in the supplement from the state, the proposed changes that meet the requirement of statutory or were proposed to the I-Code process. And should cover the requirements for the supplement.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None, these are the current statutory requirements, base code requirements or changes brought forward from the previous code.

Impact to building and property owners relative to cost of compliance with code

None, these are the current statutory requirements, base code requirements or changes brought forward from the previous code.

Impact to industry relative to the cost of compliance with code

None, these are the current statutory requirements, base code requirements or changes brought forward from the previous code.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, allows for providing the required statutory requirements and standardizes the code requirements for design.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, allows for providing the required statutory requirements and standardizes the code requirements for design.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, the same materials that were allowed prior to the will still be allowed.

Does not degrade the effectiveness of the code

No, helps standardize the code and allow for staying current with the base code as it is developed and updated.

Is the proposed code modification part of a prior code version? No

2nd Comment Period

10/31/2012 - 12/14/2012

P5038-G2

Proponent Joe Bigelow Submitted 12/6/2012 Attachments No

Comment:

Mod recieved "NAR" - Staff respectfully requests reconsideration of action and support for the the original mod for consistency with the Commission policy deferring admin provisions to FBC, Building.

Proponent Eberhard Roeder **Submitted** 12/14/2012 **Attachments** No

Comment:

P5038-G3

During the deliberations of the Plumbing TAC, concerns were raised about consistency of the alternate language A1 of P5038 with some of the proposals that I had provided and that were heard by the Special Occupancy and the Plumbing TACs. The following are similarities and differences:

The alternate language A2 now incorporates the language of SP5892 (Eliminate gray water subsurface irrigation system sections of the International Plumbing Code because such systems are already regulated as onsite sewage treatment systems (381.0065(3)(k), Fl. Statutes).

In contrast to SP6002, alternate language A2 does not distinguish between grease interceptor requirements for public sewers (1003.3 in SP6002) and grease interceptor requirements for onsite sewage systems (1003.5 in SP6002). A concern is that this lack of distinction causes conflicts between what is allowable under plumbing and under onsite sewage standards (64E-6, Florida Administrative Code).

The alternate language A2 differs from SP5996 in that A2 leaves out the following part of the exception to the 301.3 requirement of connections to a drainage system:

“ in accordance with Chapter 13. Any sewage that discharges from the building must be connected to the sanitary drainage ... and discharge to a sewage system in accordance with Chapter 7. “

The alternate language A2 incorporates the language of SP5997 nearly verbatim (definitions of gray water, individual sewage disposal system, minimum size for passive grease interceptor). The only difference is that A2 has a passive grease interceptor “in” the sanitary drainage system, while SP 5997 puts it “in or at the end of” the sanitary drainage system.

The alternate language A2 differs from the language of SP5999 in part in the same manner as from SP5997. A commonality is that because the alternate language A2 assumes that the Florida-specific base code expires, the effect of deleting historical “grease trap” language would be the same as in SP5999.

1st Comment Period History

Proponent Ken Cureton **Submitted** 9/21/2012 **Attachments** No

Comment:

P5038-G1

The proposal provides for continuation to the Commission's policy deferring the administrative requirements of the sub-codes to the FBC, B.

[A] 101.1 Title. These regulations shall be known as the *International Plumbing Code* of [NAME OF JURISDICTION] hereinafter referred to as "this code." **101.1 Scope.** The provisions of Chapter 1, Florida Building Code, Building shall govern the administration and enforcement of the *Florida Building Code, Plumbing*.

101.2 Scope. Change to read as shown:

101.2 Scope. Reserved.

101.3 Intent. Change to read as shown:

101.3 Intent. Reserved.

101.4 Scope. Change to read as shown:

101.4 Severability. Reserved.

Section 102 Applicability. Change to read as shown:

Section 102 Applicability. Reserved.

PART 2 – ADMINISTRATION AND ENFORCEMENT

Section 103 Department of Plumbing Inspection. Change to read as shown:

Section 103 Department of Plumbing Inspection. Reserved

Section 104 Duties and Powers of the Code Official. Change to read as shown:

Section 104 Duties and Powers of the Code Official. Reserved

Section 105 Approval. Change to read as shown:

Section 105 Approval. Reserved

Section 106 Permits. Change to read as shown:

Section 106 Permits. Reserved

Section 107 Inspections and Testing. Change to read as shown:

Section 107 Inspections and Testing. Reserved

Section 108 Violations. Change to read as shown:

Section 108 Violations. Reserved

Section 109 Means of Appeal. Change to read as shown:

Section 109 Means of Appeal. Reserved

Section 110 Temporary Equipment Systems and Uses. Reserved.

Florida Supplement to the I Codes:

This draft is prepared under the following assumptions:

For the purposes of using this supplement the following references apply throughout:

International Building Code, use the current Florida Building Code, Building

International Residential Code, use the current Florida Building Code, Residential

International Plumbing Code, use the current International Plumbing Code with the Florida Supplement to the I Codes Florida Building Code, Plumbing Section.

International Mechanical Code, use the current International Mechanical Code with the Florida Supplement to the I Codes Florida Building Code, Mechanical Section.

International Fire Code, use the current Florida Fire Prevention Code.

International Fuel Gas Code, use the current International Fuel Gas Code with the Florida Supplement to the I Codes Florida Building Code, Fuel Gas Section.

International Existing Building Code, use the current International Existing Building Code with the Florida Supplement to the I Codes Florida Building Code, Existing Section.

International Energy Conservation, use the current Florida Building Code, Energy Conservation

Where accessibility is required, Use the current Florida Building Code, Building, Accessibility

The Florida Supplement lists the Florida Code Changes and the sections that do not apply in Florida

FLORIDA BUILDING CODE, PLUMBING SUPPLEMENT 2013

CHAPTER 1 ADMINISTRATION

101.1 Title. These regulations shall be known as the *Plumbing Code* of the State of *Florida* [NAME OF JURISDICTION], hereinafter referred to as “this code.”

102 – 110 are Reserved and The provisions of Chapter 1 Sections 102 - 110 *Florida Building Code, Building* shall govern the administration and enforcement of the *Florida Building Code, Plumbing*.

CHAPTER 2 DEFINITIONS

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have the meanings as defined in Webster’s Third New International Dictionary of the English Language Unabridged. ~~ordinarily accepted meanings such as the context implies.~~

GRAY WATER. ~~Waste discharged from lavatories, bathtubs, showers, clothes washers and laundry trays. As defined by 381.0065(2)(b) and (d) Florida Statutes,~~ “Graywater” means that part of domestic sewage that is not blackwater, including waste from the bath, lavatory, laundry, and sink, except kitchen sink waste. “Blackwater” means that part of domestic sewage carried off by toilets, urinals, and kitchen drains.

GREASE INTERCEPTOR.

Hydromechanical. Plumbing appurtenances that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from waste water discharge. Continuous separation is accomplished by air entrainment, buoyancy and interior baffling.

Gravity. Plumbing appurtenances of not less than ~~75500~~ gallons (~~28394893~~ L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from waste water discharge. Separation is accomplished by gravity during a retention time of not less than 30 minutes.

INDIVIDUAL SEWAGE DISPOSAL SYSTEM. ~~A system for disposal of domestic sewage by means of~~

~~a septic tank, cesspool or mechanical treatment, designed for utilization apart from a public sewer to serve a single establishment or building.~~

An approved onsite sewage treatment and disposal system in accordance with Sections 381.0065 and 381.00655, Florida Statutes and Chapter 64E-6, Florida Administrative Code, Standards for Onsite Sewage Treatment and Disposal Systems. Synonymous with private sewage disposal system and private septic system.

RECLAIMED WATER. Water that has received treatment and is reused after flowing out of a domestic wastewater treatment facility.

REUSE. The deliberate application of reclaimed water for beneficial purpose.

CHAPTER 3 GENERAL REGULATIONS

301.3 Connections to drainage system.

Plumbing fixtures, drains, appurtenances and appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems required by Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved gray water system for flushing of water closets and urinals ~~or for subsurface landscape irrigation in accordance with Chapter 13. Any sewage that discharges from the building must be connected to the sanitary drainage system of the building or premises and discharge to a sewage system in accordance with Chapter 7.~~

305.1 Corrosion. Pipes passing through concrete or cinder walls and floors or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from the lime and acid of concrete, cinder or other corrosive material. Sheathing or wrapping shall allow for movement including expansion and contraction of piping. The wall thickness of the material shall be not less than 0.025 inch (0.64 mm).

Exception: Sleeving is not required for installation of CPVC into concrete or similar material.

305.1.1 Penetration. Protective sleeves around piping penetrating concrete slab-on-grade floors shall not be of cellulose-containing materials. If soil treatment is used for subterranean termite protection, the sleeve shall have a maximum wall thickness of 0.010 inch, and be sealed within the slab using a non-corrosive clamping device to eliminate the annular space between the pipe and the sleeve. No termiticides shall be applied inside the sleeve

317 Public Food Service Establishments and Food Establishments.

317.1 Requirements. Public food service establishments and food establishments, as defined in Chapter 381 Florida Statutes, Chapter 500 Florida Statutes and Chapter 509 Florida Statutes, shall comply with the applicable code requirements found in the Florida Building Code, Building, Chapter 4, Special Occupancy.

318.1 General. Irrigation/sprinkler systems and risers for spray heads shall not be installed within 1 foot (305 mm) of the building sidewall.

CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS

403.1.3 Potty parity. In assembly occupancies, restrooms which are open to the public must have a ratio of 3:2 water closets provided for women as the combined total of water closets and urinals provided for men, unless these are two or fewer such fixtures for men, in accordance with §553.86, *Florida Statutes*.

Exception: This section does not apply to establishments licensed under Chapter 509, *Florida Statutes*, if the establishment does not provide meeting or banquet rooms which accommodate more than 150 people, and the establishment has at least the same number of water closets for women as the combined total of water closets and urinals for men.

403.1.3.1 Definitions.

1. New construction. Means new construction, building, alteration, rehabilitation or repair that equals or exceeds 50 percent of the replacement value existing on October 1, 1992, unless the same was under design or construction, or under construction contract before October 1, 1992.

2. Assembly occupancy. The use of a building or structure, or any portion thereof, for the gathering together of people for purposes such as civic, social or religious functions or for recreation, or for food or drink consumption, or awaiting transportation.

3. Historic building. A building which is (a) listed on the National Register of Historic Places; (b) listed on the State Register of Historic Places; (c) listed on a municipal register of historic property, designated according to local ordinance; or (d) included in a district which is listed on a municipal, state or national register of historic property and which has been determined to contribute to the historic significance of the district.

403.1.3.2 Occupancy content calculation. The occupancy content of a building, which determines the number of water closets required for men, shall be calculated using the square footage per person requirements established by the *Florida Building Code, Building*.

403.1.4 For the purposes of calculating the minimum number of required plumbing facilities, the requirements of Table 403.1 shall apply to any areas outside of the building that are used as part of the building's designated occupancy (single or mixed). Where additional seating is also utilized in these areas,

the actual number of seats shall be added to the number of persons calculated by Table 403.1 to obtain the total additional facilities required.

403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required ~~in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.~~ for food service establishments which seat 10 persons or less.
3. Separate facilities shall not be required in mercantile *occupancies* in which the maximum occupant load is 100 or fewer.

403.6 Sanitary facilities for public swimming pools. Swimming pools with a bathing load of 20 persons or less may utilize a unisex restroom. Pools with bathing loads of 40 persons or less may utilize two unisex restrooms or meet the requirement of Table 403.6. Unisex restrooms shall meet all the requirements for materials, drainage and signage as indicated in sections 424.1.6.1.1 through 424.1.6.1.4 of the *FBC, Building*. Each shall include a water closet, a diaper change table, a urinal, and a lavatory. Pools with a bathing load larger than 40 persons shall provide separate sanitary facilities labeled for each sex. The entry doors of all restrooms shall be located within a 200-foot (60 960 mm) walking distance of the nearest water's edge of each pool served by the facilities.

Exception: Where a swimming pool serves only a designated group of residential dwelling units and not the general public, poolside sanitary facilities are not required if all living units are within a 200 foot horizontal radius of the nearest water's edge, are not over three stories in height and are each equipped with private sanitary facilities.

403.6.1 Required fixtures. Fixtures shall be provided as indicated on Table 403.8. The fixture count of Table 403.8 is deemed to be adequate for the pool and pool deck area that is up to three times the area of the pool surface provided. An additional set of fixtures shall be provided in the men's restroom for every 7,500 square feet or major fraction thereof for pools greater than 10,000 square feet. Women's restrooms shall have a ratio of three to two water closets provided for women as the combined total of water closets and urinals provided for men. Lavatory counts shall be equal.

403.6.2 Outside access. Outside access to facilities shall be provided for bathers at outdoor pools. Where the restrooms are located within an adjacent building and the restroom doors do not open to the outside, the restroom doors shall be within 50 feet of the buildings exterior door. If the restrooms are not visible from

any portion of the pool deck, signs shall be posed showing directions to the facilities. Directions shall be legible from any portion of the pool deck; letters shall be a minimum of 1-inch high.

403.6.3 Sanitary facility floors. Floors of sanitary facilities shall be constructed of concrete or other nonabsorbent materials, shall have a smooth, slip-resistant finish, and shall slope to floor drains. Carpets, duckboards and footbaths are prohibited. The intersection between the floor and walls shall be coved where either floor or wall is not made of waterproof materials such as tile or vinyl.

TABLE 403.6

PUBLIC SWIMMING POOL - REQUIRED FIXTURES COUNT

SIZE	MEN'S RESTROOMS			WOMEN'S RESTROOMS	
	Urinals	WC	Lavatory	WC	Lavatory
0 - 2500 sq ft	1	1	1	1	1
2501 - 5000 sq ft	2	1	1	5	1
5001 - 7500 sq ft	2	2	2	6	2
7501 - 10,000 sq ft	3	2	3	8	3

Section 404 Accessible Plumbing Facilities.

404.1 Where required. Accessible plumbing facilities and fixtures shall be provided in accordance with the *International Florida Building Code, Accessibility*.

423.3 Reclaimed water. Reclaimed water shall be permitted to be used for aesthetic uses such as decorative pools or fountains in accordance with Florida Department of Environmental Protection (DEP). Reuse of reclaimed water activities shall comply with the requirements of DEP rules.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply meeting the requirements of *Florida Statute 373* shall be utilized.

602.4 Reclaimed water. Reclaimed water shall be permitted to be used for flushing water closets and urinals and other fixtures which do not require potable water in accordance with Florida Department of Environmental Protection (DEP) Chapter 62-610, *F.A.C.* Reuse of reclaimed water activities shall comply with the requirements of DEP Chapter 62-610, *F.A.C.*

CHAPTER 7 SANITARY DRAINAGE

701.2 Sewer required. Buildings in which plumbing fixtures are installed and premises having drainage piping shall be connected to a ~~public sewer~~, publicly owned or investor-owned sewerage system where available, or an approved onsite sewage treatment and private sewage disposal system in accordance with Chapter 64E-6, *Florida Administrative Code*, Standards for Onsite Sewage Treatment and Disposal Systems ~~the *International Private Sewage Disposal Code*.~~

CHAPTER 10

1003.2 Approval. The size, type and location of each interceptor and of each separator shall be approved by the plumbing official. Where the interceptor or separator is located within an onsite sewage treatment and disposal system, such interceptor or separator shall be approved by the health official. The interceptor or separator shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

1003.3.3 Grease interceptors and automatic grease removal devices not required. A grease interceptor or automatic grease removal device shall not be required for individual dwelling units or any private living quarters.

1003.3.4 Hydromechanical grease interceptors and automatic grease removal devices. Hydromechanical grease interceptors and automatic grease removal devices shall be sized in accordance

with ASME A112.14.3 Appendix A, ASME 112.14.4, CSA B481.3 or PDI G101. Hydromechanical grease interceptors and automatic grease removal devices shall be designed and tested in accordance with ASME A112.14.3 Appendix A, ASME 112.14.4, CSA B481.1, PDI G101 or PDI G102. Hydromechanical grease interceptors and automatic grease removal devices shall be installed in accordance with the manufacturer's instructions. Where manufacturer's instructions are not provided, hydromechanical grease interceptors and grease removal devices shall be installed in compliance with ASME A112.14.3, ASME 112.14.4, CSA B481.3 or PDI G101. ~~This section shall not apply to gravity grease interceptors.~~

Exception: Grease interceptors that are sized, constructed and approved in accordance with Rule 64E-6, Florida Administrative Code and that are located outside the building shall not be required to meet the requirements of this section.

~~**1003.3.4.1 Grease interceptor capacity.** Grease interceptors shall have the grease retention capacity indicated~~

~~in Table 1003.3.4.1 for the flow through rates indicated.~~

TABLE 1003.3.4.1

CAPACITY OF GREASE INTERCEPTORS a For SI: 1 gallon per minute = 3.785 L/m, 1 pound = 0.454 kg.

a. For total flow through ratings greater than 100 (gpm), double the flow through rating to determine the grease retention capacity (pounds).

~~**1003.3.4.2 Rate of flow controls.** Grease interceptors shall be equipped with devices to control the rate of water flow so that the water flow does not exceed the rated flow. The flow control device shall be vented and~~

~~terminate not less than 6 inches (152 mm) above the flood rim level or be installed in accordance with the manufacturer's instructions.~~

~~**1003.3.5 Automatic grease removal devices.** Where automatic grease removal devices are installed, such devices shall be located downstream of each fixture or multiple fixtures in accordance with the manufacturer's instructions. The automatic grease removal device shall be sized to pretreat the measured or calculated flows for all connected fixtures or equipment. Ready *access* shall be provided for inspection and maintenance.~~

1003.11 Sand interceptors in commercial establishments. Sand and similar interceptors for heavy solids shall be designed and located so as to be provided with ready access for cleaning, and shall have a water

seal of not less than 6 inches (152 mm).

CHAPTER 13 GRAY WATER RECYCLING SYSTEMS

SECTION 1301 GENERAL

1301.1 Scope. The provisions of Chapter 13 shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals and for subsurface landscape irrigation. See Figures 1301.1(1) and 1301.1(2).

Exception Subsurface Landscape Irrigation Systems shall not be utilized with a onsite sewage treatment and disposal system. Per (381.0065(2)(j); 381.0065(3)(a)(b)(k), Fl. Statutes). 64E-6, FAC.

CHAPTER 14 REFERENCED STANDARDS

Florida Codes

Florida Building Commission

c/o Florida Department of Business and Professional Regulation

Building Codes and Standards

2555 Shumard Oak Boulevard

Tallahassee, Florida 32399-2100

Standard Referenced in code

Reference Number Title section number

FBC-B 2013 Florida Building Code, Building 201.3, 305.4, 307.1, 307.2, 307.3, 308.2, 309.1, 310.1, 310.3, 315.1, 403.1, Table 403.1,

404.1, 407.3, 417.6, 502.6, 606.5.2, 1106.5

Ch. 11 Florida Building Code, Building - Accessibility 404.1.1 315.1

Ch. 553.86 Florida Statute, Public Restrooms 403.1.1

Florida Building Code, Energy Conservation 313.1, 607.2, 607.2.1

Ch. 27 Florida Building Code, Building-Electrical (National Electrical Code, NFPA 70)

201.3, 502.1, 504.3, 1113.1.3

FEBC—2013 Florida Existing Building Code 101.2

FBC-FG 2013 Florida Building Code, Fuel Gas 101.2, 201.3, 502.1

FBC-M 2013 Florida Building Code, Mechanical 201.3, 307.6, 310.1, 422.9,

502.1, 612.1, 1202.1

FRC-2013 Florida Residential Code 101.2

FFPC-2013 Florida Fire Prevention Code 201.3, 1201.1

Ch. 62-610 Florida Administrative Code-Reuse of Reclaimed Water

and Land Application 602.4

Ch. 64E-6 Florida Administrative Code-Standards for Onsite Sewage

and Disposal Systems 701.2, 1003.5.2

Ch. 373 Florida Statute, Water Resources 602.3

Ch. 381 Florida Statute, Food Products 317.1

Ch. 500 Florida Statute, Lodging and Food Service Establishments 317.1

Ch. 509 Florida Statute, Public Lodging and Food Service Establishments 317.1

Florida Supplement to the I Codes:

This draft is prepared under the following assumptions:

For the purposes of using this supplement the following references apply throughout:

International Building Code, use the current Florida Building Code, Building

International Residential Code, use the current Florida Building Code, Residential

International Plumbing Code, use the current International Plumbing Code with the Florida Supplement to the I Codes Florida Building Code, Plumbing Section.

International Mechanical Code, use the current International Mechanical Code with the Florida Supplement to the I Codes Florida Building Code, Mechanical Section.

International Fire Code, use the current Florida Fire Prevention Code.

International Fuel Gas Code, use the current International Fuel Gas Code with the Florida Supplement to the I Codes Florida Building Code, Fuel Gas Section.

International Energy Conservation, use the current Florida Building Code, Energy Conservation

Where accessibility is required, Use the current Florida Building Code, Building, Accessibility

The Florida Supplement lists the Florida Code Changes and the sections that do not apply in Florida

FLORIDA BUILDING CODE, PLUMBING SUPPLEMENT 2013

CHAPTER 1 ADMINISTRATION

101.1 Title. These regulations shall be known as the *Plumbing Code* of the State of *Florida* [NAME OF JURISDICTION], hereinafter referred to as “this code.”

101.2 Scope.

The provisions of this code shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within this jurisdiction. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the *International Fuel Gas Code*. Provisions in the appendices shall not apply unless specifically adopted.

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the *International Residential Code*.

2. Alteration, repair, addition, relocation and change of occupancy of existing structures and buildings shall comply with the provisions of the *Florida Building Code, Existing Building*.

102 – 110 are Reserved and The provisions of Chapter 1 Sections 102 - 117 *Florida Building Code, Building* shall govern the administration and enforcement of the *Florida Building Code, Plumbing*.

CHAPTER 2 DEFINITIONS

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have the meanings as defined in Webster’s Third New International Dictionary of the English Language Unabridged. ~~ordinarily accepted meanings such as the context implies.~~

GRAY WATER. ~~Waste discharged from lavatories, bathtubs, showers, clothes washers and laundry trays.~~ As defined by 381.0065(2)(b) and (d) *Florida Statutes*, “Graywater” means that part of domestic sewage that is not blackwater, including waste from the bath, lavatory, laundry, and sink, except kitchen sink waste. “Blackwater” means that part of domestic sewage carried off by toilets, urinals, and kitchen drains.

GREASE INTERCEPTOR.

Hydromechanical. Plumbing appurtenances that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from waste water discharge. Continuous separation is accomplished by air

entrapment, buoyancy and interior baffling.

Gravity. Plumbing appurtenances of not less than ~~750~~ 500 gallons (~~2839~~ 1893 L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils and grease from waste water discharge. Separation is accomplished by gravity during a retention time of not less than 30 minutes.

INDIVIDUAL SEWAGE DISPOSAL SYSTEM. ~~A system for disposal of domestic sewage by means of a septic tank, cesspool or mechanical treatment, designed for utilization apart from a public sewer to serve a single establishment or building.~~

An approved onsite sewage treatment and disposal system in accordance with Sections 381.0065 and 381.00655, Florida Statutes and Chapter 64E-6, Florida Administrative Code, Standards for Onsite Sewage Treatment and Disposal Systems. Synonymous with private sewage disposal system and private septic system.

RECLAIMED WATER. Water that has received treatment and is reused after flowing out of a domestic wastewater treatment facility.

REUSE. The deliberate application of reclaimed water for beneficial purpose.

CHAPTER 3 GENERAL REGULATIONS

301.3 Connections to drainage system.

Plumbing fixtures, drains, appurtenances and appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems required by Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved gray water system for flushing of water closets and urinals ~~or for subsurface landscape irrigation.~~

305.1 Corrosion. Pipes passing through concrete or cinder walls and floors or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from the lime and acid of concrete, cinder or other corrosive material. Sheathing or wrapping shall allow for movement including expansion and contraction of piping. The wall thickness of the material shall be not less than 0.025 inch (0.64 mm).

Exception: Sleeving is not required for installation of CPVC into concrete or similar material.

305.1.1 Penetration. Protective sleeves around piping penetrating concrete slab-on-grade floors shall not be of cellulose-containing materials. If soil treatment is used for subterranean termite protection, the sleeve shall have a maximum wall thickness of 0.010 inch, and be sealed within the slab using a non-corrosive clamping device to eliminate the annular space between the pipe and the sleeve. No termiticides shall be applied inside the sleeve

312.10.1 Inspections. Inspections Annual shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable.

312.10.2 Testing.

Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies and hose connection backflow preventers shall be tested at the time of installation, and immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10 or CSA B64.10.1.

317 Public Food Service Establishments and Food Establishments.

317.1 Requirements. Public food service establishments and food establishments, as defined in Chapter 381 Florida Statutes, Chapter 500 Florida Statutes and Chapter 509 Florida Statutes, shall comply with the applicable code requirements found in the Florida Building Code, Building, Chapter 4, Special Occupancy.

318.1 General. Irrigation/sprinkler systems and risers for spray heads shall not be installed within 1 foot (305 mm) of the building sidewall.

CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS

403.1.3 Potty parity. In assembly occupancies, restrooms which are open to the public must have a ratio of 3:2 water closets provided for women as the combined total of water closets and urinals provided for men, unless these are two or fewer such fixtures for men, in accordance with §553.86, Florida Statutes.

Exception: This section does not apply to establishments licensed under Chapter 509, Florida Statutes, if the establishment does not provide meeting or banquet rooms which accommodate more than 150 people, and the establishment has at least the same number of water closets for women as the combined total of water closets and urinals for men.

403.1.3.1 Definitions.

1. New construction. Means new construction, building, alteration, rehabilitation or repair that equals or exceeds 50 percent of the replacement value existing on October 1, 1992, unless the same was under design or construction, or under construction contract before October 1, 1992.

2. Assembly occupancy. The use of a building or structure, or any portion thereof, for the gathering together of people for purposes such as civic, social or religious functions or for recreation, or for food or drink consumption, or awaiting transportation.

3. Historic building. A building which is (a) listed on the National Register of Historic Places; (b) listed on the State Register of Historic Places; (c) listed on a municipal register of historic property, designated

according to local ordinance; or (d) included in a district which is listed on a municipal, state or national register of historic property and which has been determined to contribute to the historic significance of the district.

403.1.3.2 Occupancy content calculation. The occupancy content of a building, which determines the number of water closets required for men, shall be calculated using the square footage per person requirements established by the *Florida Building Code, Building*.

403.1.4 For the purposes of calculating the minimum number of required plumbing facilities, the requirements of Table 403.1 shall apply to any areas outside of the building that are used as part of the building's designated occupancy (single or mixed). Where additional seating is also utilized in these areas, the actual number of seats shall be added to the number of persons calculated by Table 403.1 to obtain the total additional facilities required.

403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required ~~in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.~~ for food service establishments which seat 10 persons or less.
3. Separate facilities shall not be required in mercantile *occupancies* in which the maximum occupant load is 100 or fewer.

423.3 Reclaimed water. Reclaimed water shall be permitted to be used for aesthetic uses such as decorative pools or fountains in accordance with Florida Department of Environmental Protection (DEP). Reuse of reclaimed water activities shall comply with the requirements of DEP rules.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

602.3 Individual water supply. Where a potable public water supply is not available, individual sources of

potable water supply meeting the requirements of Florida Statute 373 shall be utilized.

602.4 Reclaimed water. Reclaimed water shall be permitted to be used for flushing water closets and urinals and other fixtures which do not require potable water in accordance with Florida Department of Environmental Protection (DEP) Chapter 62-610, F.A.C. Reuse of reclaimed water activities shall comply with the requirements of DEP Chapter 62-610, FAC.

Section 611 DRINKING WATER TREATMENT UNITS

611.1 When reduction of aesthetic contaminants, such as chlorine, taste, odor or sediment are claimed, the drinking water treatment units must meet the requirements of NSF 42, Drinking Water Treatment Units-Aesthetic Effects, or Water Quality Association Standard S-200, Household and Commercial Water Filters (In-Line). When reduction of regulated health contaminants is claimed, such as inorganic or organic chemicals or radiological substances, the drinking water treatment unit must meet the requirements of NSF 53, Drinking Water Treatment Units-Health Effects.

611.2 Reverse osmosis drinking water treatment systems shall meet the requirements of NSF 58, Reverse Osmosis Drinking Water Treatment Units, or Water Quality Association Standard S-300, Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems.

611.3 When reduction of regulated health contaminants is claimed, such as inorganic or organic chemicals, or radiological substances, the reverse osmosis drinking water treatment unit must meet the requirements of NSF 58, Reverse Osmosis Drinking Water Treatment Systems.

611.4 Waste or discharge from reverse osmosis or other types of water treatment units must enter the drainage system through an air gap or be equipped with an equivalent backflow-prevention device.

CHAPTER 7 SANITARY DRAINAGE

701.2 Sewer required. Buildings in which plumbing fixtures are installed and premises having drainage piping shall be connected to a ~~public sewer~~, publicly owned or investor-owned sewerage system where available, or an approved onsite sewage treatment and ~~private~~sewage disposal system in accordance with Chapter 64E-6, Florida Administrative Code, Standards for Onsite Sewage Treatment and Disposal Systems ~~the International Private Sewage Disposal Code.~~

CHAPTER 10

1003.2 Approval. The size, type and location of each interceptor and of each separator shall be approved by the plumbing official. Where the interceptor or separator is located within an onsite sewage treatment and disposal system, such interceptor or separator shall be approved by the health official. The interceptor or separator shall be designed and installed in accordance with the manufacturer’s instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

1003.3.4 Hydromechanical grease interceptors and automatic grease removal devices.

Hydromechanical grease interceptors and automatic grease removal devices shall be sized in accordance with ASME A112.14.3 Appendix A, ASME 112.14.4, CSA B481.3 or PDI G101. *Hydromechanical grease interceptors* and automatic grease removal devices shall be designed and tested in accordance with ASME A112.14.3 Appendix A, ASME 112.14.4, CSA B481.1, PDI G101 or PDI G102. *Hydromechanical grease interceptors* and automatic grease removal devices shall be installed in accordance with the manufacturer's instructions. Where manufacturer's instructions are not provided, *hydromechanical grease interceptors* and grease removal devices shall be installed in compliance with ASME A112.14.3, ASME 112.14.4, CSA B481.3 or PDI G101. This section shall not apply to *gravity grease interceptors*.

Exception: Grease interceptors that are sized, constructed and approved in accordance with Rule 64E-6, Florida Administrative Code and that are located outside the building shall not be required to meet the requirements of this section.

1003.11 Sand interceptors in commercial establishments. Sand and similar interceptors for heavy solids shall be designed and located so as to be provided with ready access for cleaning, and shall have a water seal of not less than 6 inches (152 mm).

CHAPTER 11 STORM DRAINAGE

1106.7 Scupper sizing.

Scuppers shall be sized in accordance with Table 1106.7.

TABLE 1106.7

SIZING SCUPPERS FOR A 5 INCH PER HOUR RATE OF RAINFALL

HORIZONTALLY PROJECTED ROOF AREA (SQUARE FEET)							
HEAD IN INCHES	LENGTH OF WEIR IN INCHES						
	4	6	8	12	16	20	24
1	230	346	461	692	923	1153	1384
2	641	961	1282	1923	2564	3205	3846
3	1153	1730	2307	3461	4615	5769	6923
4	1794	2692	3589	5384	7179	8974	10,769

Note:

To adjust this table for other than a 5-inch design rain fall rate, multiply the square footage on the table by 5 then divide by the local design rain fall rate.

Example:

For 4 inches of design rainfall rate, a 4-inch long scupper with a 1 inch head would accommodate 287 square feet. $(230 \times 5) \div 4 = 287$.

CHAPTER 13 GRAY WATER RECYCLING SYSTEMS

SECTION 1301 GENERAL

1301.1 Scope.

The provisions of Chapter 13 shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals ~~and for subsurface landscape irrigation~~. See Figures 1301.1(1) ~~and 1301.1(2)~~.

(Note: delete figure 1301.1(1))

~~FIGURE 1301.1(1) GRAY WATER RECYCLING SYSTEM FOR SUBSURFACE LANDSCAPE IRRIGATION~~

FIGURE 1301.1(12) GRAY WATER RECYCLING SYSTEM FOR FLUSHING WATER CLOSETS AND URINALS

1301.2 Installation.

In addition to the provisions of Section 1301, systems for flushing of water closets and urinals shall comply with Section 1302 ~~and systems for subsurface landscape irrigation shall comply with Section 1303~~. Except as provided for in this chapter, all systems shall comply with the provisions of the other chapters of this code.

(Note: leave subsections 1301.3 through 1301.12 unchanged)

SECTION 1302 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

(Note: leave section 1302 as is)

~~SECTION 1303 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS~~

(Note: delete section 1303 in its entirety)

~~1303.1 Collection reservoir:~~

~~Reservoirs shall be sized to limit the retention time of gray water to a maximum of 24 hours.~~

~~1303.1.1 Identification.~~

~~The reservoir shall be identified as containing nonpotable water.~~

~~1303.2 Valves required.~~

~~A check valve and a full open valve located on the discharge side of the check valve shall be installed on the effluent pipe of the collection reservoir.~~

~~1303.3 Makeup water.~~

~~Makeup water shall not be required for subsurface landscape irrigation systems. Where makeup water is provided, the installation shall be in accordance with Section 1302.3.~~

1303.4 Disinfection.

Disinfection shall not be required for gray water used for subsurface landscape irrigation systems.

1303.5 Coloring.

Gray water used for subsurface landscape irrigation systems shall not be required to be dyed.

1303.6 Estimating gray water discharge.

The system shall be sized in accordance with the gallons-per-day-per-occupant number based on the type of fixtures connected to the gray water system. The discharge shall be calculated by the following equation:

$C = A \times B$ (Equation 13-1)

where:

A = Number of occupants:

Residential Number of occupants shall be determined by the actual number of occupants, but not less than two occupants for one bedroom and one occupant for each additional bedroom.

Commercial Number of occupants shall be determined by the *International Building Code*®.

B = Estimated flow demands for each occupant:

Residential 25 gallons per day (94.6 lpd) per occupant for showers, bathtubs and lavatories and 15 gallons per day (56.7 lpd) per occupant for clothes washers or laundry trays.

Commercial Based on type of fixture or water use records minus the discharge of fixtures other than those discharging gray water.

C = Estimated gray water discharge based on the total number of occupants.

1303.7 Percolation tests.

The permeability of the soil in the proposed absorption system shall be determined by percolation tests or permeability evaluation.

1303.7.1 Percolation tests and procedures.

At least three percolation tests in each system area shall be conducted. The holes shall be spaced uniformly in relation to the bottom depth of the proposed absorption system. More percolation tests shall be made where necessary, depending on system design.

1303.7.1.1 Percolation test hole.

The test hole shall be dug or bored. The test hole shall have vertical sides and a horizontal dimension of 4 inches to 8 inches (102 mm to 203 mm). The bottom and sides of the hole shall be scratched with a sharp-pointed instrument to expose the natural soil. All loose material shall be removed from the hole and the bottom shall be covered with 2 inches (51 mm) of gravel or coarse sand.

1303.7.1.2 Test procedure, sandy soils.

The hole shall be filled with clear water to a minimum of 12 inches (305 mm) above the bottom of the hole for tests in sandy soils. The time for this amount of water to seep away shall be determined, and this procedure shall be repeated if the water from the second filling of the hole seeps away in 10 minutes or less. The test shall proceed as follows: Water shall be added to a point not more than 6 inches (152 mm) above the gravel or coarse sand. Thereupon, from a fixed reference point, water levels shall be measured at 10-minute intervals for a period of 1 hour. Where 6 inches (152 mm) of water seeps away in less than 10 minutes, a shorter interval between measurements shall be used, but in no case shall the water depth exceed 6 inches (152 mm). Where 6 inches (152 mm) of water seeps away in less than 2 minutes, the test shall be

stopped and a rate of less than 3 minutes per inch (7.2 s/mm) shall be reported. The final water level drop shall be used to calculate the percolation rate. Soils not meeting the above requirements shall be tested in accordance with Section 1303.7.1.3.

1303.7.1.3 Test procedure, other soils.

The hole shall be filled with clear water, and a minimum water depth of 12 inches (305 mm) shall be maintained above the bottom of the hole for a 4-hour period by refilling whenever necessary or by use of an automatic siphon. Water remaining in the hole after 4 hours shall not be removed. Thereafter, the soil shall be allowed to swell not less than 16 hours or more than 30 hours. Immediately after the soil swelling period, the measurements for determining the percolation rate shall be made as follows: any soil sloughed into the hole shall be removed and the water level shall be adjusted to 6 inches (152 mm) above the gravel or coarse sand. Thereupon, from a fixed reference point, the water level shall be measured at 30-minute intervals for a period of 4 hours, unless two successive water level drops do not vary by more than $\frac{1}{16}$ inch (1.59 mm). At least three water level drops shall be observed and recorded. The hole shall be filled with clear water to a point not more than 6 inches (152 mm) above the gravel or coarse sand whenever it becomes nearly empty. Adjustments of the water level shall not be made during the three measurement periods except to the limits of the last measured water level drop. When the first 6 inches (152 mm) of water seeps away in less than 30 minutes, the time interval between measurements shall be 10 minutes and the test run for 1 hour. The water depth shall not exceed 5 inches (127 mm) at any time during the measurement period. The drop that occurs during the final measurement period shall be used in calculating the percolation rate.

1303.7.1.4 Mechanical test equipment.

Mechanical percolation test equipment shall be of an approved type.

1303.7.2 Permeability evaluation.

Soil shall be evaluated for estimated percolation based on structure and texture in accordance with accepted soil evaluation practices. Borings shall be made in accordance with Section 1303.7.1 for evaluating the soil.

1303.8 Subsurface landscape irrigation site location.

The surface grade of all soil absorption systems shall be located at a point lower than the surface grade of any water well or reservoir on the same or adjoining lot. Where this is not possible, the site shall be located so surface water drainage from the site is not directed toward a well or reservoir. The soil absorption system shall be located with a minimum horizontal distance between various elements as indicated in Table 1303.8. Private sewage disposal systems in compacted areas, such as parking lots and driveways, are prohibited. Surface water shall be diverted away from any soil absorption site on the same or neighboring lots.

TABLE 1303.8 LOCATION OF GRAY WATER SYSTEM

ELEMENT	MINIMUM HORIZONTAL DISTANCE	
	HOLDING TANK (feet)	IRRIGATION DISPOSAL FIELD (feet)
Buildings	5	2
Lot line adjoining private property	5	5
Water wells	50	100
Streams and lakes	50	50

Seepage pits	5	5
Septic tanks	0	5
Water service	5	5
Public water main	10	10

For SI: 1 foot = 304.8 mm.

1303.9 Installation.

Absorption systems shall be installed in accordance with Sections 1303.9.1 through 1303.9.5 to provide landscape irrigation without surfacing of gray water.

1303.9.1 Absorption area.

The total absorption area required shall be computed from the estimated daily gray water discharge and the design loading rate based on the percolation rate for the site. The required absorption area equals the estimated gray water discharge divided by the design loading rate from Table 1303.9.1.

TABLE 1303.9.1 DESIGN LOADING RATE

PERCOLATION RATE (minutes per inch)	DESIGN LOADING FACTOR (gallons per square foot per day)
0 to less than 10	1.2
10 to less than 30	0.8
30 to less than 45	0.72
45 to 60	0.4

For SI: 1 minute per inch = min/25.4 mm,
1 gallon per square foot = 40.7 L/m².

1303.9.2 Seepage trench excavations.

Seepage trench excavations shall be not less than 1 foot (304 mm) in width and not greater than 5 feet (1524 mm) in width. Trench excavations shall be spaced not less than 2 feet (610 mm) apart. The soil absorption area of a seepage trench shall be computed by using the bottom of the trench area (width) multiplied by the length of pipe. Individual seepage trenches shall be not greater than 100 feet (30 480 mm) in developed length.

1303.9.3 Seepage bed excavations.

Seepage bed excavations shall be not less than 5 feet (1524 mm) in width and have more than one distribution pipe. The absorption area of a seepage bed shall be computed by using the bottom of the trench area. Distribution piping in a seepage bed shall be uniformly spaced not greater than 5 feet (1524 mm) and not less than 3 feet (914 mm) apart, and greater than 3 feet (914 mm) and not less than 1 foot (305 mm) from the sidewall or headwall.

1303.9.4 Excavation and construction.

The bottom of a trench or bed excavation shall be level. Seepage trenches or beds shall not be excavated where the soil is so wet that such material rolled between the hands forms a soil wire. All smeared or compacted soil surfaces in the sidewalls or bottom of seepage trench or bed excavations shall be scarified to the depth of smearing or compaction and the loose material removed. Where rain falls on an open excavation, the soil shall be left until sufficiently dry so a soil wire will not form when soil from the excavation bottom is rolled between the hands. The bottom area shall then be scarified and loose material removed.

1303.9.5 Aggregate and backfill.

Not less than 6 inches in depth of aggregate ranging in size from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches (12.7 mm to 64 mm) shall be laid into the trench below the distribution piping elevation. The aggregate shall be evenly distributed not less than 2 inches (51 mm) in depth over the top of the distribution pipe. The aggregate shall be covered with approved synthetic materials or 9 inches (229 mm) of uncompacted marsh hay or straw. Building paper shall not be used to cover the aggregate. Not less than 9 inches (229 mm) of soil backfill shall be provided above the covering.

1303.10 Distribution piping.

Distribution piping shall be not less than 3 inches (76 mm) in diameter. Materials shall comply with Table 1303.10. The top of the distribution pipe shall be not less than 8 inches (203 mm) below the original surface. The slope of the distribution pipes shall be not less than 2 inches (51 mm) and not greater than 4 inches (102 mm) per 100 feet (30 480 mm).

TABLE 1303.10 DISTRIBUTION PIPE

MATERIAL	STANDARD
Polyethylene (PE) plastic pipe	ASTM F 405
Polyvinyl chloride (PVC) plastic pipe	ASTM D 2729
Polyvinyl chloride (PVC) plastic pipe with a 3.5 inch O.D. and solid cellular core or composite wall.	ASTM F 1488

1303.11 Joints.

Joints in distribution pipe shall be made in accordance with Section 705 of this code.

CHAPTER 14 REFERENCED STANDARDS

Florida Codes

Florida Building Commission

c/o Florida Department of Business and Professional Regulation

Building Codes and Standards

1940 North Monroe Street
Tallahassee, FL 32399-1027

Standard Referenced in code

Reference Number Title section number

FBC-B 2013 Florida Building Code, Building 201.3, 305.4, 307.1, 307.2, 307.3, 308.2, 309.1, 310.1, 310.3, 315.1, 403.1, Table 403.1,

404.1, 407.3, 417.6, 502.6, 606.5.2, 1106.5

Ch. 11 Florida Building Code, Building - Accessibility 404.1.1 315.1

Ch. 553.86 Florida Statute, Public Restrooms 403.1.1

Florida Building Code, Energy Conservation 313.1, 607.2, 607.2.1

Ch. 27 Florida Building Code, Building-Electrical (National Electrical Code, NFPA 70)

201.3, 502.1, 504.3, 1113.1.3

FEBC—2013 Florida Existing Building Code 101.2

FBC-FG 2013 Florida Building Code, Fuel Gas 101.2, 201.3, 502.1

FBC-M 2013 Florida Building Code, Mechanical 201.3, 307.6, 310.1, 422.9,

502.1, 612.1, 1202.1

FRC-2013 Florida Residential Code 101.2

FFPC-2013 Florida Fire Prevention Code 201.3, 1201.1

Ch. 62-610 Florida Administrative Code-Reuse of Reclaimed Water

and Land Application 602.4

Ch. 64E-6 Florida Administrative Code-Standards for Onsite Sewage

and Disposal Systems 701.2, 1003.5.2

Ch. 373 Florida Statute, Water Resources 602.3

Ch. 381 Florida Statute, Food Products 317.1

Ch. 500 Florida Statute, Lodging and Food Service Establishments 317.1

Ch. 509 Florida Statute, Public Lodging and Food Service Establishments 317.1

Date Submitted 7/22/2012	Section 608.13.2 and 608.13.7	Proponent David Brown
Chapter 6	Affects HVHZ No	Attachments Yes
TAC Recommendation No Affirmative Recommendation with a Second		
Commission Action Pending Review		

Comments

General Comments Yes	Alternate Language No
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Related Modifications

None

Summary of Modification

Sections 608.13.2 & 608.13.7 of the Code require an additional sentence to bring them into compliance with a number of federal anti-terrorism laws and the Florida Statutes.

Rationale

The devices named in Sections 608.13.2 & 608.13.7 of the Code violate a number of federal anti-terrorism laws because they provide terrorists with direct access to the public drinking water supply. They also violate the Florida Statutes. They do not belong in residential areas.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

It would relieve the County of having to monitor residential backflow valves. However, if the responsibility "to provide for safe drinking water at all times" was shifted to the utilities, where it belongs, they would need extra personnel. So, cost wise, it is probably a wash.

Impact to building and property owners relative to cost of compliance with code

This Modification is only intended to apply to homeowners residential areas. It would not impact building owners. But the impact to homeowners would be in the \$100,000,000s. The cost was so much in Wyoming that they banned residential backflow valves altogether.

Impact to industry relative to the cost of compliance with code

This Modification is only intended to apply to homeowners in residential areas. So there would be no impact to industry.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This has an ABSOLUTE connection with the public's health, safety, and welfare! These two valves provide direct access to the public's drinking water supply and make it easy for a terrorist to contaminate a community's water supply with readily available deadly chemicals and bio-toxins.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This improves the code by modifying two sections that currently violate a number of federal anti-terrorism laws. It also brings these two sections into conformity with the Florida Statutes.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This does not discriminate. In fact, according to the Florida Department of Environmental Protection, the only demonstrated capability of these two types of valves is that they fail a lot - so much so that at any given moment, 1 in 8 will not pass certification!

Does not degrade the effectiveness of the code

This vastly improves the effectiveness of the code by eliminating devices that are prone to failure and allowing them to be replaced with devices with an empirical record of being simple, reliable and less costly - which is the best of all possible worlds when it comes to plumbing devices.

Is the proposed code modification part of a prior code version? No

2nd Comment Period

10/31/2012 - 12/14/2012

Proponent David Brown	Submitted 12/13/2012	Attachments Yes
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Comment:

On October 10, 2012, the Plumbing TAC of the Florida Building Code Commission met in Daytona Beach, Florida. I addressed you, in connection with Mod # P5572, by pointing out that the Florida Plumbing Code must be brought into required compliance with a number of federal anti-terrorism laws and with the Florida Statutes Sections 120.52(8)(e), 120.52(8)(f) and 120.54(1). You tabled my Mod, pending review. It was suggested that I provide you with the clear path of legal citations for modifying Sections 608.13.2 and 608.13.7 of the Building Code. The attached .pdf document does that. Please note that this 9-page document of legal citations is also available on the internet as a printable .pdf file at <http://www.backflowvideos.org/citations.pdf>

P5572-G2

Proponent	BOAF CDC	Submitted	9/23/2012	Attachments	No
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Comment:

P5572-G1

The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. Per FS 553.73 (7) (g)

The proposed amendment was does not appear to have been submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process.

This code change is unnecessary as the provisions contained in the proposed amendment are adequately addressed in the applicable international code. Per FS 553.73 (7) (g)

Please see the attached Support File

for how the Florida Building Code must be brought into required compliance with federal anti-terrorism laws and Florida Statutes 120.52(8)(e), 120.52(8)(f) & 120.54(1)

by adding the following sentence to Building Code Sections 608.13.2 and 608.13.7:

"These devices shall not be installed in residential areas."

So that they read:

608.13.2 Reduced pressure principle backflow preventers.

Reduced pressure principle backflow preventers shall conform to [ASSE 1013](#), [AWWA C511](#), [CAN/CSA B64.4](#) or [CSA B64.4](#). 1. Reduced pressure detector assembly backflow preventers shall conform to [ASSE 1047](#). These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged. These devices shall not be installed in residential areas.

608.13.7 Double check-valve assemblies.

Double check-valve assemblies shall conform to [ASSE 1015](#), [CSA B64.5](#), [CSA B64.5.1](#) or [AWWA C510](#). Double-detector check-valve assemblies shall conform to [ASSE 1048](#). These devices shall be capable of operating under continuous pressure conditions. These devices shall not be installed in residential areas.

Federal laws and the Florida Statutes are the foundation documents that determine what regulators can and can't do.

Executive Summary

The Florida Building Code must be brought into required compliance with federal anti-terrorism laws and Florida Statutes 120.52(8)(e), 120.52(8)(f) & 120.54(1) by adding the following sentence to Building Code Sections 608.13.2 and 608.13.7:

“These devices shall not be installed in residential areas.”

First, a number of federal anti-terrorism laws have been enacted since “9/11” to deter the activities of terrorists. Many of these laws consider the public drinking water supply to be a critical infrastructure that must be protected against terrorist attacks. This infrastructure is composed of water sources, treatment plants and extensive distribution systems. To protect the distribution systems, the laws prohibit devices that provide direct access into public drinking water supplies so as to deny terrorists the means to contaminate public water supplies with easily available deadly chemicals and bio-toxins.

Federal laws must be obeyed! According to the U.S. Supreme Court, “A state [Florida] may not pursue policies that undermine federal law”. The Florida Building Code (Plumbing) does violate federal anti-terrorism laws by including two devices that allow terrorists direct access into our residential water distribution systems using an over-pressurization technique. The extreme dangers of this contamination technique have been enumerated by a number of water system professionals, government officials and organizations, including the American Water Works Association (AWWA) and the American Bar Association (ABA).

Second, because of the extreme rarity of residential backflow incidents, the two devices described in Sections 608.13.2 and 608.13.7 of the Code must exclude residential installations because of **Florida Statute 120.52(8)(e)** which prohibits arbitrary and capricious rules. The two devices in question are:

608.13.2 - Reduced Pressure Principle Backflow Preventer (RP)
608.13.7 - Double Check-valve Assembly (DC).

Third, because of the homeowner’s cost to install, test and maintain these two types of valves AND because there are “less costly alternatives” available, Sections 608.13.2 and 608.13.7 of the Code must be modified to exclude residential installations – otherwise the Code is in violation of **Florida Statutes 120.52(8)(f) & 120.54(1)(d)**.

Fourth, the Code must respect both the U.S. Safe Drinking Water Act (**Pub. L. No. 93-523**) and the Florida Safe Drinking Water Act (**403.850-403.864, Florida Statutes**) and assign the responsibility “to provide for safe drinking water at all times” to the utilities, not to homeowners with RP and DC backflow valves in their front yards. It’s the mandated role of the utilities to be the **providers**, not the homeowners!

About this document:

The following background material is organized to correspond with the statements made in the above Executive Summary.

Throughout this material are clickable internet links that look something like: “Click here ⁷ ...”. To the right of “here” is a cross-reference number to the footnote with the actual internet address (URL) – just in case the clicking function doesn’t work for you. The video links are .wmv files - which are compatible with Windows Media Player.

Part 1 – Federal Anti-Terrorism Laws.

A number of federal anti-terrorism laws have been enacted since “9/11” that prohibit devices that provide direct access into public drinking water supplies.

These include **the U.S. Bioterrorism Act, the U.S. Patriot Act and the U.S. Critical Infrastructure Protection Act**. The Building Code **must** respect these federal anti-terrorism laws and therefore **must not** specify infrastructure devices, like Reduced Pressure Principle Backflow Preventers (RPs) and the Double Check-valve Assemblies (DCs) that have test ports that provide direct access to a public drinking water supply and can (**will**) be used for contamination purposes.

For example, consider the mandates in some of these federal anti-terrorism laws:

RPs and DCs amount to "delivery systems for bio-toxins", which are prohibited by 18 U.S.C. § 175 : "Prohibitions with respect to biological weapons."

Likewise, RPs and DCs violate the Patriot Act in that they provide "material support or resources... including **weapons**" to terrorists. Section 1016 of the U.S. Patriot Act recognizes the water sector as being part of our country's critical infrastructure and requires actions necessary so that "any physical or virtual disruption of the operation of the critical infrastructures of the United States be rare, brief, geographically limited in effect, manageable, and **minimally detrimental** to the economy, human and government services, and national security of the United States."

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act) requires water utilities to "**defend against** adversarial actions that might substantially disrupt the ability of a system to provide a safe and reliable supply of drinking water." Getting rid of residential RPs and DCs is a primary defense against terrorists' being able to contaminate a public water supply.

In addition, there are such things as the National Infrastructure Protection Plan (NIPP), the Water Sector of the Critical Infrastructure Partnership Advisory Council (CIPAC) and the Florida Bureau of Water Programs, to name a few, that are concerned with the vulnerability of water distribution systems by prohibiting devices that permit terrorists to directly access a utility's drinking water distribution system. ¹

Understandably, these laws were passed to deny terrorists the means to contaminate public water supplies with easily available deadly chemicals (like herbicides and insecticides from farm supply stores) and bio-toxins (like an *e coli* laden slurry of poo). The Florida Building Code (Plumbing) violates these federal laws by including two devices that allow terrorists direct access into our water distribution systems.

¹ The Washington Post has reported that there are 1,271 government organizations that work on programs related to counter-terrorism, homeland security and intelligence.

Valve Discussion:

The two devices in question in this Modification are the Reduced Pressure Principle Backflow Preventer (RP) and the Double Check-valve Assembly (DC).

However, there are four (actually five) types of valves that are usually considered for backflow prevention.

Air gap (AG) – Air gap valves can be as simple as a faucet in a kitchen sink or can be very complicated and very expensive requiring a pump and controls to maintain a working pressure on the customer’s side. The second type is typically used in industrial settings where backflow is much more common.

Reduced-pressure principle backflow preventer (RP – formerly known as RPZ) – RPs are expensive, complicated and prone to failure. RPs cost \$200 to \$700 to install and \$80 to \$840 for annual testing and maintenance. They are easily and often stolen for their metal content. Click [here](#)² to learn how to steal them and easily melt them down into ingots. The Florida Department of Environmental Protection (DEP) has provided data showing that at any given moment, because of their complexity, **one out of eight RP valves is out of compliance**. I can’t think of any discipline concerned with the safety of individuals, including aviation, railroads, highways, automobiles, etc., that would abide such a horrific failure rate. Click [here](#)³ for a crude, but scholarly, video explaining that 1-in-8 failure rate. An RP has four test ports that provide direct access for a terrorist to contaminate a public water supply.

Double check valve assembly (DC) – A DC, like the RP above, has four test ports that provide direct access to contaminate a public water supply. And like the RP, it too violates a number of anti-terrorism laws. And just like the RP, a DC can also be quite expensive to install and to annually test and maintain. The main difference between the two is that DCs are harder to steal because they’re usually in an underground vault with the water meter whereas RPs must be above ground.

² www.backflowvideos.org/video20H.wmv

³ www.backflowvideos.org/fail1in8.wmv

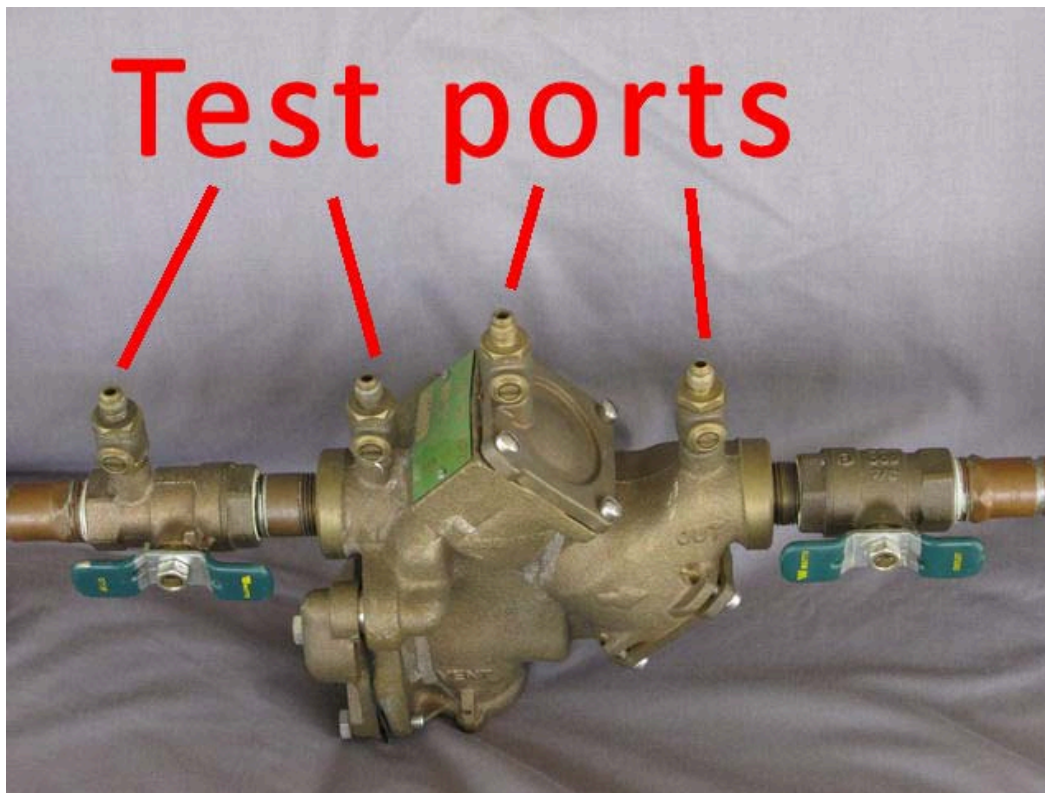
Dual check valve (DU) – Note that the valve just above here was called a **DOUBLE** Check. This one is called a **DUAL** Check. A Dual Check **does not** allow direct access to the public water supply. Nor does it have a high failure rate. Palm Beach County has been using them for many years and has found them to be very reliable because of their simplicity. To their credit, the DEP has already indicated that they “are planning to include in [their] revisions to Rule 62-555.360 F.A.C., provisions to allow use of dual check devices at service connections to residential premises where there is an auxiliary water system.”

Although not technically a valve, there is a fifth device which is the best of all possible worlds. It is the **Automatic Meter Reading water meter (AMR)**, preferably installed without a check valve. It is to meter reading and backflow detection what Mozart is to music. Over time, it is less expensive, readings are much more accurate and it provides a compelling protection of a public water supply. They can be a part of a utility’s public relations by alerting customers to leaking plumbing or open faucets. They also catch people who are watering illegally, considering that half of the potable water in Florida is used for lawn irrigation.

AMR's actually detect⁴ and record the amount of forward and backflow every 15 minutes, or oftener, and transmit the data to a passing vehicle or instantaneously to a central antenna. They cut the cost of reading a meter from 54¢ to 4¢ per meter. When installed without a check valve, which is preferable, an AMR also allows for the safe ebb-and-flow of water heater pressure cycles every few hours caused by the thermal expansion.

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⁴ Unlike AMR’s, note that RP and DC valves do not actually detect backflow. And since RP and DC valves are prone to failure because of their complexity, it could well be that the valves could fail for the better part of a year without their doing any detecting.

Test Port Locks:

RP and DC valves are complicated and prone to failure. Because of this they must be tested every year or two just to be sure they're even working. This testing is done by way of the four test ports that are located across the top of both RP and DC valves.

Unfortunately, these test ports also provide terrorists with the access they need to contaminate the public's drinking water supply.

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So, the valve manufacturers came up with Test Port Locks that are purported to prevent access to the potable water. The concept was that the outer shell could be unlocked from the center part and a terrorist could not then unscrew the lock to gain access to the water supply through the ports.

Even though a plumber will charge a homeowner over \$200 for a set of four locks per valve, the locks are a joke. They are only for show. All that is required to overcome a Test Port Lock is to distort the shell with a hammer, vise grips, hack saw or drill. An even simpler way to defeat them is to just use a drop of Super Glue to bind the shell to the center so that the lock can be unscrewed. Click [here](#)⁵ to view a video about how easy it is to overcome Test Port Locks.

There are companies who sell fake rocks to conceal the RPs. Sometimes these rocks are anchored into the ground and have a padlock. The padlocks are easily opened with a “universal padlock pass key” – otherwise known as cable cutters.

⁵ www.backflowvideos.org/video17H.wmv

Contamination methods:

Residential RP and DC backflow valves are extremely dangerous because they do provide direct access into the utilities' drinking water mains.

Here are three ways to contaminate a drinking water supply using backflow valves!

Method 1



Method 1 is called “Over Pressurization”. The red container is partly filled with a toxic chemical, pathogen or a slurry of poo and then pressurized. Upon release, the pressure forces the contaminate through the valve and the service connection to the left in the photo into the utility’s public drinking water mains and to the rest of the community. This is the demo rig that I take around to public meetings. It only backflows a couple of cups of contaminate. The AWWA suggests using “a drum of toxic chemicals” for this method. This over pressurization method seems to be common knowledge. A utility director wrote: “From a water system perspective, your demonstration is informative, but not new to the professionals who operate our systems.” An Environmental Administrator with the Health Department wrote: "The problem with this demonstration of his is not for coaching terrorists, as they have no doubt already conceived this procedure, but rather of vandals and disgruntled staff or neighbors that hadn't yet figured out how to harm a few

people with water." It was my public demonstrations with this rig that caused several government officials to turn me into law enforcement thus confirming that these valves are dangerous. If you're plumbing savvy, please ignore the stubs on the risers. They are part of the demo setup. Click [here](#)⁶ to view a video demonstration of this method.

Method 2



Method 2 utilizes a refrigerator ice water filter cartridge from Home Depot. The filtering medium is replaced with a toxic granular pesticide or herbicide which then contaminates the drinking water as it flows on into a home, school, commercial building or a government facility to the right. The TREEO Center at the University of Florida provided me with the details of this very clever contamination method.

Click [here](#)⁷ to view a video of how to modify the cartridge. (The animation in the video shows the cartridge's being connected between test ports 2 and 4 of the valve. Actually, it should be connected between ports 1 and 2 as in the above photo. Then turn the first shutoff valve slightly closed so that part of the safe drinking water from the mains is shunted through the cartridge to pick up the contaminate and carry it into the building.)

⁶ www.backflowvideos.org/video10H.wmv

⁷ www.backflowvideos.org/method2.wmv

Method 3



Method 3 is the simplest of all and just involves inserting *e coli* (dog, cat or human poo) or a baggy of toxic chemicals into a valve to contaminate the drinking water flowing into a home, business or government facility. Click [here](#)⁸ to view a video of how to prepare and then insert the poo or chemical bag into the valve.

All of the security that surrounds reservoirs and water treatment plants seems kind of silly, doesn't it, given that a lone terrorist can access a utility's distribution system through any residential RP or DC valve on any back street in the middle of the night.

⁸ www.backflowvideos.org/method3a.wmv

Speaking out:

As part in my own efforts to publicize the inherent dangers of RPs & DCs in residential areas, I give talks to community groups that include a demonstration of my simple \$30 pressure rig that shows just how quickly and easily deadly chemicals and bio-toxins can be pressurized and backflowed into a public drinking water supply via an RP valve by a terrorist.

If you would like to see the video of my demonstration, please click [here](#) ⁹.

A number of water system professionals, government officials and organizations, including the American Water Works Association (AWWA) and the American Bar Association (ABA), have enumerated the contamination risks to water supplies.

If you don't think much of federal anti-terrorism laws, then at least please pay attention to what these water professionals who administer and operate our public drinking water systems have to say. These people have publically recognized the vulnerability of the utility's mains to be contaminated by terrorists, disgruntled people, pranksters and even high-school kids. Some of this recognition comes in the form of internal communications. Other forms of this recognition come in the actions of government officials who went out of their way to contact law enforcement to silence those would dare speak out about the inherent dangers of residential backflow valves – such as this old fart. Have you ever had an early morning, unannounced visit from the FBI about backflow valves? I have!

Unless there are kickbacks involved, I simply don't understand why these officials act as they do! One would think that officials with words like “Drinking Water” and “Security” associated with their titles would surely be more concerned with insuring safe drinking water then trying to bully a citizen who questions their regulations.

However, I do cherish the actions of these officials as *confirming beyond the shadow of a doubt* that RP and DC backflow valves are dangerous and do not belong in residential areas.

⁹ www.backflowvideos.org/video10H.wmv

In particular, I cherish three of these law enforcement “referrals” because they were by officials who are very familiar with backflow processes.

The first was by Bob DiCecco, the Cross-Control Manager of Hillsborough County, who “referred” Homeland Security to me. It’s great to have a Cross-Control Manager, who was also formerly a plumber, confirm that RPs and DCs are dangerous.

The second “referral” was by Patti Kay Wisniewski, who is the Drinking Water Security Coordinator for the United States Environmental Protection Agency’s (EPA) Mid-Atlantic section which includes Washington, DC.

The EPA has a website with a number of excellent links. I respectfully asked them if they would include a link to my webpage www.backflowvideos.org which has a number of videos highlighting the inherent dangers of backflow valves. With the word “Protection” as their middle name, I figured that the EPA would want to tell the full story and make all citizens aware of the inherent dangers of backflow valves. But, alas, such was not to be. Instead of doing something constructive to ban RP (RPZ) and Double-check valves in residential areas nationwide, Ms. Wisniewski chose to turn me and my website over to her Water Security Division “for further investigation.”

She also wrote that “Water suppliers are very much aware of this risk [of over-pressurization contamination via backflow valves].” Instead of burying her head in the sand and harassing the kid in the crowd for pointing out that the king has no clothes on, Ms. Wisniewski should be using the power of her position as a “Drinking Water Security Coordinator” to remove the nationwide danger of residential RP (RPZ) and Double-check (DC) backflow valves.

Ms. Wisniewski’s action on behalf of the EPA reminds me very much of the government’s reaction when it was warned **before 9/11**, that terrorists might fly airplanes into skyscrapers. The federal government did nothing! They ignored the warnings and 3,000 people died as a result. Will it take the death of thousands of citizens to give a wakeup call to Ms. Wisniewski and other government officials to ban residential backflow valves?

The third “referral” is the most cherished of all! It was by Van Hoofnagle, the Administrator of the DEP’s Drinking Water Section. He is responsible for overseeing Florida’s Safe Drinking Water Act. He instructed his co-worker, the Chief of DEP’s Bureau of Emergency Response, to contact law enforcement about my public statements and demonstrations about the inherent dangers of residential backflow valves.

Nothing ever happened as a result of the visit I got from the FBI. I guess that freedom of speech and the fact that I was right influenced them. However, I did give them a demonstration of just how easily one can contaminate a water supply through a backflow valve that has test ports, such as an RP or DC. They were surprised at the ease of doing the contamination. Even so, I do now have an FBI record and a blot on my reputation that will be with me for the rest of my life. But beyond that, it saddened me (actually, it pissed me off) that Hoffnagle, as a high-ranking DEP official and public servant entrusted with the responsibility of ensuring safe drinking water in Florida, would negligently advocate RPs in residential areas and then attempt to silence any dissent. Hoffnagle knew that I was right. If my concerns had been off in left field, he would not have taken such an extreme action as to confer a lifetime FBI record on a citizen for questioning his Department’s regulations.

If the valves were not a true danger, all of these officials, acting in their official capacities, would not have behaved as they did towards my speaking out and my demonstrations. They would not have gone out of their way to cause a citizen to have the lifetime stigma of an FBI record.

Despite all the statements and overt actions, it concerns me that there is so little willingness on their part to do anything about these inherently dangerous valves. As noted before, unless there are kickbacks involved, I simply don’t understand why these government officials act as they do.

But God bless them anyway for making it *officially clear and beyond a shadow of a doubt* that residential backflow valves are downright dangerous.

There are a number of revealing email quotes from government officials about the dangers of RPs and DCs. They were obtained through several public records requests. You can read them by clicking [here](#) ¹⁰.

The website watertechonline.com, reporting on a Water Security Summit that took place in Hartford, CT in December of 2001, noted that:

“The distribution system, many officials said during the conference, is the point that is probably most vulnerable to terrorists. ... **"Guards, guns and gates" are not sufficient when it comes to terrorism.**” ¹¹

Gay Porter Denileon is employed by the American Water Works Association (AWWA) and is also a member of the National Critical Infrastructure Protection Advisory Group. In a well written, peer-reviewed article titled "The Who, What, Why, and How of Counterterrorism Issues" ¹², she wrote:

“Almost every home and building within a public water system has unprotected access to the distribution system; **one sociopath who understands hydraulics and has access to a drum of toxic chemicals could inflict serious damage pretty quickly to a water supply system in a neighborhood or pressure zone without detection in most communities.**”

Lawyers Tim DeYoung and Adam Gravley, writing in the American Bar Association’s “Natural Resources and Environment Journal” stated that:

“While it may be relatively easy to protect water sources and treatment plants from contamination, extensive distribution systems provide multiple access points. ... **Some water utility officials believe that the leading threat to the**

¹⁰ www.backflowvideos.org/Smoking_guns_handout.pdf

¹¹ His report from 2001 that was at watertechonline.com/news.asp?N_ID=27709 is no longer there.

¹² Journal of the AWWA, Vol. 93, No. 5, pp78-85, May 2001

nation's water supply may be the use of backflow pressure to introduce poisons into local water distribution systems.”¹³

The overwhelming facts are that RPs and DCs do provide direct access to public drinking water systems - and that utility and government officials are well aware of it!

Part 2 – Arbitrary and Capricious Rules.

Residential backflow incidents are extremely rare:

No one in Florida has ever died from any backflow incident. And according to the Health Department, **no one** in Hillsborough County, FL (population: 1.2 million) has ever even gotten sick from any backflow incident. The chances of a residential backflow incident in Florida are slim to none. For example, the DEP presented data at their workshop in Sanford, FL in February of 2009 that there is just one backflow incident per year in Florida. The Watts Valve Company has published case study results showing that 19 out of every 20 backflow events are caused by a commercial operation, not residential. Combining these data means that **one time in every twenty years in Florida**, one person will maybe get diarrhea from a residential backflow event!

Plumbers seem to have this amazing knack for coming up with urban-legends intended to scare homeowners into spending money to install and annually test and maintain the valves. However, when I ask for details of the incidents, they back off.

The wildest story that I ever got was that the outbreak of Legionnaire's Disease in Philadelphia in 1976 was caused by not having a backflow valve. When I reminded the guy that it was actually because the hotel's maintenance folks hadn't cleaned the coils in the roof-top air conditioner for a long time, he backed down. I guess he figured that the incident was so far in the past that he could get away with "revising history".

¹³ The article "Coordinating Efforts to Secure American Public Water Supplies" was co-authored by Tim De Young and Adam Gravley, who are partners in the Seattle office of Preston Gates and Ellis, LLP. The article appeared in the American Bar Association's "Natural Resources and Environment Journal", Volume 16, Number 3, Winter 2002.

Residential backflow valves are the solution to a problem that simply doesn't exist. Their benefit approaches zero compared to their cost.¹⁴ Requiring backflow valves in residential areas is like requiring traffic signals at every driveway. Or requiring everyone to wear a helmet to protect against meteorites. It's all nonsense!

The Florida Statute that comes into play here is **120.52(8)(e) F.S.** which reads:

(8) "Invalid exercise of delegated legislative authority" means action that goes beyond the powers, functions, and duties delegated by the Legislature. A proposed or existing rule is an invalid exercise of delegated legislative authority if (e) the rule is arbitrary or capricious. A rule is arbitrary if it is not supported by logic or the necessary facts; a rule is capricious if it is adopted without thought or reason or is irrational."

Several states exempt all residential customers from backflow prevention devices, with the most notable being Wyoming, who found that: "The prevention of one death in 143 years at a cost of \$1.3 billion dollars does not justify the mandatory installation of backflow devices on residential and domestic non-residential services." Click [here](#)¹⁵ for the full Wyoming statement.

Backflow valves are extremely unreliable:

Another factor indicating the arbitrary and capricious nature of specifying RP and DC valves in the Building Code is their extreme failure rate. The DEP has provided data showing that at any given moment, because of their complexity, one out of eight RP valves is out of compliance.

Here is the DEP's official statement concerning the unreliability of Reduced Pressure Principle Backflow Preventers (RPs). The document was prepared by the DEP's John Sowerby in response to a question from a member of the Florida Senate as to why the

¹⁴ Depending on the honesty of the plumber, the valves' installation costs to a homeowner can range from \$400 to \$1000. And then once installed the annual cost to a homeowner to test and maintain a valve, according to the University of Florida, ranges from \$60 to \$840, depending on the honesty of the backflow valve tester.

¹⁵ www.suncitydave.info/kick-06.pdf

time between testing RPs shouldn't be five years, instead of one. Here is DEP's statement that was sent back to the Senator: ¹⁶

"Mechanical backflow preventers have internal seals, springs, and check valves that are subject to fouling, corrosion, wear, or fatigue. Depositing water and tuberculation build-up, as well as foreign material such as sand grains, can foul check valves or can clog sensing lines in reduced-pressure principle backflow preventers. Corrosive waters can disintegrate metal parts. Even the simple movement of water through backflow preventers can cause wear on parts. Therefore, testable mechanical backflow preventers must be tested periodically to ensure that the internal parts of the backflow preventers are functioning properly. All manufacturers of backflow preventers, the U.S. Environmental Protection Agency, the American Water Works Association, the American Backflow Prevention Association, the American Society of Sanitary Engineering, and the National Fire Protection Association, as well as the International Plumbing Code and Florida Building Code, recommend or require that testable mechanical backflow preventers be tested at least annually (or more frequently). Less frequent testing of testable mechanical backflow preventers will result in both an increased number of these backflow preventers failing to function properly between tests and an increased period of time during which these backflow preventers are not functioning properly. According to Les O'Brien, an instructor at the University of Florida's Center for Training, Research, and Environmental Occupations and a nationally recognized expert on backflow prevention and cross-connection control, **the percentage of testable mechanical backflow preventers failing to function properly during any year typically ranges between 10% to 40%** and increases about 10% each year a backflow preventer is not tested. Therefore, after five years, the percentage of testable mechanical backflow preventers failing to function properly may be between 50% and 80%. When a mechanical backflow preventer fails to function properly, it may or may not still prevent backflow depending on the type and degree of failure."

¹⁶ Sent by John Sowerby on 4/1/2005 to Geoffrey Mansfield and Brian Welch (DEP's lobbyist to the Florida Senate) for presentation to the Senator.

The “10% to 40%” failure rate averages out to a 25% yearly failure rate. An RP failure rate of 1 out of 4 (25%) to protect a public water system from contamination is very troubling, from both a safety and liability standpoint. From a statistical point of view, this means that at any given moment, 1 out of 8 RP valves are in failure mode. Click [here](#)¹⁷ for a crude, but scholarly, video explaining that 1-in-8 failure rate. I can’t think of any discipline concerned with the safety of individuals, including aviation, railroads, highways, automobiles, etc., that would abide such a horrific failure rate. **Can you?**

Part 3 - Less costly alternatives.

Florida Statutes: Sections 120.52(8)(f) & 120.54(1)(d).

The third areas of the law that the Code **must** adhere to are **Sections 120.52(8)(f) and 120.54(1)(d) of the Florida Statutes** which mandate that only the **one** “less costly alternative” is to be imposed on a regulated person.

The way it works is that by law **a regulator may put forth only the one “less costly alternative”**. But then, if a local government later wants to impose “more stringent” regulations on its own citizens, the Florida Statute at 553.73(4) permits it to do so.

Regulators often lose sight of the fact that they are to abide by the law and work for the benefit of the regulated person, county or city – not to impose their own stringent agenda on the regulated. The intent of these Statutes is to reduce regulatory costs statewide – which will help grow Florida’s economy. Here are two Florida Statutes that put the concerns of the regulated first:

Section 120.52(8)(f) “A proposed or existing rule is an invalid exercise of delegated legislative authority if the rule imposes regulatory costs on the regulated person, county, or city which could be reduced **by the adoption of less costly alternatives that substantially accomplish the statutory objectives.**”

¹⁷ www.backflowvideos.org/failin8.wmv

Section 120.54(1)(d) “In adopting rules, all agencies must, among the alternative approaches to any regulatory objective and to the extent allowed by law, choose the alternative that does not impose regulatory costs on the regulated person, county, or city which could be reduced **by the adoption of less costly alternatives that substantially accomplish the statutory objectives.**”

RPs and DCs are certainly not the “less costly alternative”. They are expensive to install, test and maintain because of their complexity. And because of their complexity, they are also prone to frequent failure. And as the DEP has indicated: At any given moment, one out of eight RP valves is failing to meet operating standards. Empirical data from Palm Beach County documents that Dual Check valves are very reliable. In addition, it is the singularly “less costly alternative”. Therefore, it is the only one that can be specified in the Code in order to abide by the Florida Statutes.

Part 4 - The utilities, not the homeowners, are responsible for providing safe drinking water.

Florida Statutes: Section 403.851(3).

The fourth area of the law that the Code **must** consider is **Section 403.851(3) of the Florida Statutes** (Florida’s Safe Drinking Water Act). Its mandates that the utilities are “to provide for safe drinking water at all times throughout the state, **with due regard** for economic factors and efficiency in government.”

The Code **must** confer the responsibility on the utilities, not the homeowners, to provide for safe drinking water at all times. Otherwise, the Building Code violates Florida’s Safe Drinking Water Act which is part of the Florida Statutes.

And to further abide by Florida Statute 403.851(3), the Code, out of respect for Florida’s Safe Drinking Water Act, must give due regard to the economic factors of backflow valves. For example, **no one** in Florida has ever died from any backflow incident. **No one** in Hillsborough County, FL (population: 1.2 million) has ever even gotten sick from any backflow incident. The DEP’s data suggests that there is just one residential backflow incident every twenty years in Florida. Residential backflow valves are the solution to a problem that simply doesn’t exist. Their benefit approaches zero compared

to their cost. Several states, such as Wyoming, exempt all residential customers from backflow prevention devices.

The Modifications:

Please note that this Mod's additions are not concerned with backflow valves in commercial/industrial settings. I'll leave the commercial concerns for someone else. This Mod is only concerned with residential backflow valves.

Bearing in mind that federal law and the Florida Statutes take precedence over everything, the additions to bring the Building Code into compliance with federal anti-terrorism laws and into compliance with the Florida Statutes, are underlined and highlighted.

608.13.2 Reduced pressure principle backflow preventers.

Reduced pressure principle backflow preventers shall conform to ASSE 1013, AWWA C511, CAN/CSA B64.4 or CSA B64.4.1. Reduced pressure detector assembly backflow preventers shall conform to ASSE 1047. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by *air gap* and shall be prevented from being submerged. These devices shall not be installed in residential areas.

608.13.7 Double check-valve assemblies.

Double check-valve assemblies shall conform to ASSE 1015, CSA B64.5, CSA B64.5.1 or AWWA C510. Double-detector check-valve assemblies shall conform to ASSE 1048. These devices shall be capable of operating under continuous pressure conditions. These devices shall not be installed in residential areas.

Final remarks:

Believe it or not, the twenty pages of material presented here is just a fraction of what is available! For the full story, please visit my website www.backflowvideos.org . There you will find a number of videos (total viewing time is about 90 minutes) about the various aspects of RPs and DCs.

Also on that same web page are links to the 22 issues of *Backflow Valve Updates* (total reading time is about 60 minutes). These *Updates* are sent out to about 1,400 government officials and water professionals by me to keep them abreast of the Florida DEP's revision of their backflow valve regulations.

If you would like to be put on the mailing list to receive future *Updates*, please [email](#) me.

Please feel free to contact me if you have any questions, comments or corrections.

Thank you,

A handwritten signature in black ink that reads "David Brown". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

David Brown

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On October 10, 2012, the Plumbing TAC of the Florida Building Code Commission met in Daytona Beach, Florida. I addressed you, in connection with Mod # P5572, by pointing out that the Florida Plumbing Code must be brought into required compliance with a number of federal anti-terrorism laws and with the Florida Statutes Sections 120.52(8)(e), 120.52(8)(f) and 120.54(1). You tabled my Mod, pending review. It was suggested that I provide you with the clear path of legal citations for modifying Sections 608.13.2 and 608.13.7 of the Building Code. This document does that.

The Mod proposes adding the following sentence to Building Code Section 608.13.2 and to Building Code Section 608.13.7:

“These devices shall not be installed in residential areas.”

You’ll recall that I also showed you three very easy methods by which a terrorist can contaminate a public drinking water supply with over-the-counter deadly farm chemicals and biological agents & toxins (like *e coli* from poop) using backflow prevention valves. If you would like to review these three methods, click [Method 1](#)¹, [Method 2](#)² and [Method 3](#)³. I also showed you one of the many ways to overcome a test port lock. To review a video of that technique, click [here](#)⁴. There are additional resource materials and other videos concerning terrorism and backflow valves that can be viewed [here](#)⁵.

Reduced-Pressure Principle Backflow Preventer (RP – formerly known as RPZ) and Double Check Valve Assembly (DC) valves obviously violate a number of federal anti-terrorism laws and also violate a number of sections of the Florida Statutes.

One comment was received on Mod. The comment seemed to be concerned that “The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. “ **The comment fails to appreciate the system of laws that we have in the United States!** The foundation code is irrelevant! The U.S. Constitution and federal anti-terrorism laws are the law of the land and supersede all other laws and regulations, including the Florida Statutes and the “foundation code”.

The Plumbing TAC cannot be above the law.

The events of “9-11” spawned many federal anti-terrorism laws which mandate that RPs and DCs are **totally unacceptable** in residential areas.

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“These devices shall not be installed in residential areas.”

You’ll recall that I also showed you three very easy methods by which a terrorist can contaminate a public drinking water supply with over-the-counter deadly farm chemicals and biological agents & toxins (like *e coli* from poop) using backflow prevention valves. If you would like to review these three methods, click Method 1 ¹, Method 2 ² and Method 3 ³. I also showed you one of the many ways to overcome a test port lock. To review a video of that technique, click here ⁴. There are additional resource materials and other videos concerning terrorism and backflow valves that can be viewed here ⁵.

Reduced-Pressure Principle Backflow Preventer (RP – formerly known as RPZ) and Double Check Valve Assembly (DC) valves obviously violate a number of federal anti-terrorism laws and also violate a number of sections of the Florida Statutes.

One comment was received on Mod. The comment seemed to be concerned that “The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. “ **The comment fails to appreciate the system of laws that we have in the United States!** The foundation code is irrelevant! The U.S. Constitution and federal anti-terrorism laws are the law of the land and supersede all other laws and regulations, including the Florida Statutes and the “foundation code”.

The Plumbing TAC cannot be above the law.

The events of “9-11” spawned many federal anti-terrorism laws which mandate that RPs and DCs are **totally unacceptable** in residential areas.

RPs and DCs are dinosaurs of the past! IT'S TIME TO MOVE ON!

In response to the request made at the Daytona Beach meeting, here are the four areas of citations that mandate the modification of Sections 608.13.2 and 608.13.7:

1. U.S. Constitution.
2. Federal Anti-terrorism Laws.
3. Florida Statutes.
4. The Plumbing TAC's Liability & Responsibility.

U.S. Constitution

The "Supremacy Clause" of the *U.S. Constitution*, Article VI, Clause 2, establishes that the U.S. Constitution and all federal laws "shall be the supreme law of the land".

Federal Anti-terrorism Laws

Bearing in mind that federal laws are the supreme law of the land...

18 USC § 2339A

The federal law at 18 USC § 2339A – Providing material support to terrorists, prohibits providing material support to terrorists, precisely like residential RPs and DCs, that provide terrorists with the means to easily access and contaminate public drinking water supplies through test ports and piston covers.

18 USC § 2339A reads:

"Whoever provides material support or resources [in the form of "facilities, weapons, lethal substances"] ... shall be fined under this title, imprisoned not more than 15 years, or both, and, if the death of any person results, shall be imprisoned for any term of years or for life."

The Plumbing TAC does not have the authority to override federal law and force citizens to provide material support to terrorists. The Plumbing TAC cannot coerce anybody into violating the law!

18 U.S.C. § 175

Biological Weapons Anti-Terrorism Act

The federal law at 18 U.S.C. § 175 - Prohibitions with respect to biological weapons, is for people who actually possess delivery systems for biological agents and toxins.

18 U.S.C. § 175 reads:

“Whoever knowingly ... possesses any ... delivery system for [biological agents or toxins]... shall be fined under this title or imprisoned for life or any term of years, or both.”

The Plumbing TAC does not have the authority to override federal law and force citizens to possess delivery systems, like RPs and DCs, for biological agents and toxins. The Plumbing TAC cannot coerce anybody into violating the law!

18 U.S.C. § 175c

Biological Weapons Anti-Terrorism Act

The federal law at 18 U.S.C. § 175c : Variola virus, imposes extreme punishments on those who would aid and abet the terrorists who will be introducing variola virus into the public drinking water supply by way of RPs and DCs.

18 U.S.C. § 175c reads:

“Subsection (a): It shall be unlawful for any person [or to “aid and abet” or “conspire” with such a person] to knowingly ... transfer directly or indirectly ... variola virus. ... [Any such person] shall be fined not more than \$2,000,000 and shall be sentenced to a term of imprisonment not less than 25 years or to imprisonment for life. If the death of another results from a person's violation of subsection (a), the person shall be fined not more than \$2,000,000 and punished by imprisonment for life.”

The Plumbing TAC does not have the authority to override federal law to aid and abet terrorism by forcing citizens to install, test and maintain RPs and DCs that can be used to introduce variola virus into the public drinking water supply. The Plumbing TAC cannot coerce anybody into violating the law!

42 U.S.C. 300f-300j-9
U.S. Safe Drinking Water Act
as amended by Public Law 107-188
The Bioterrorism Act

Section 1433 of the U.S. Safe Drinking Water Act instructs “community water systems [to defend against] a terrorist attack intended to substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water”. Note that this defense is assigned to “community drinking water systems” – not to individual homeowners.

The Plumbing TAC does not have the authority to shift the federal responsibility assigned to “community water systems” of defending their distribution facilities against terrorism and then assign it to homeowners. The Plumbing TAC’s attempt to make individual homeowners responsible for the “safety and reliability” of a drinking water system’s distribution facilities is as far beyond cavil as would be the making of the passengers on an airplane responsible for the airliner’s “safety and reliability”.

There are a number of additional federal anti-terrorism laws and directives concerned with defending the drinking water infrastructure against acts of terrorism.

What has been cited above is more than enough to justify implementing Mod P5572.

Florida Statutes

Section 120.52(8)(f) F.S.

Section 120.52(8)(f) of the Florida Statutes mandates that:

“A proposed or existing rule is an invalid exercise of delegated legislative authority if the rule imposes regulatory costs on the regulated person, county, or city which could be reduced by the adoption of **less costly alternatives** that substantially accomplish the statutory objectives.”

Included in the Florida Plumbing Code of backflow prevention valve for residential areas is the Dual Check valve, not to be confused with the much mentioned Double Check valve (DC). The Dual Check is the least expensive of the valves.

Unlike the RP and DC, the Dual Check backflow preventer valve does not provide access to the public drinking water supply. (Empirical data from Palm Beach County shows that the Dual Check valves, because of their simplicity, are extremely reliable. Hillsborough County has publicly recognized the Dual Check as being reliable and adequate for backflow protection.)

Dual Check backflow valves, not RPs and DCs, are the singularly “less costly alternative” and therefore **the only one** under *120.52(8)(f) F.S.* that can be specified by the Plumbing TAC for residential use.

Section 120.54(1)(d) F.S.

Section 120.54(1)(d) of the Florida Statutes mandates that:

“In adopting rules, all agencies must, among the alternative approaches to any regulatory objective and to the extent allowed by law, choose **the** alternative that does not impose regulatory costs on the regulated person, county, or city which could be reduced by the adoption of **less costly alternatives** that substantially accomplish the statutory objectives.”

Included in the Florida Plumbing Code’s list of backflow values for residential areas is the Dual Check valve (DuC), not to be confused with the much mentioned Double Check valve (DC). The Dual Check is the least expensive of the valves.

The Dual Check does not provide access to the public drinking water supply. (Empirical data from Palm Beach County shows that the Dual Check valves, because of their simplicity, are extremely reliable. Hillsborough County has publicly recognized the Dual Check as being reliable and adequate for backflow protection.)

Dual Check backflow valves are **the** singularly “less costly alternative” and therefore **the only one** under *120.54(1)(d) F.S.* that can be specified by the Plumbing TAC for residential use.

Section 403.851(3) F.S

Section 403.851(3) F.S. - Florida's Safe Drinking Water Act states that:

“Without any relinquishment of Florida’s sovereign powers and responsibilities to provide for the public health, public safety, and public welfare of the people of Florida, the Legislature intends (3) to provide for safe drinking water at all times throughout the state, **with due regard for economic factors** and efficiency in government.”

No one in Florida that lacked an RP or DC valve has ever died from any backflow incident. And according to the Health Department, no one in Hillsborough County, FL (population: 1.2 million) that lacked an RP or DC valve has ever even gotten sick from any backflow incident.

The Florida Department of Environmental Protection (DEP) has presented data which, when combined with industry data, shows that there is just one residential backflow incident every twenty years in Florida. RPs and DCs are the solution to a problem that doesn’t exist.

The benefit of RPs and DCs approaches **zero** compared to their vulnerabilities and their high cost to install, test and maintain!

Section 120.52(8)(e) F.S.

Section 120.52(8)(e) of the Florida Statutes mandates that:

“A proposed or existing rule is an invalid exercise of delegated legislative authority if the rule is capricious ... a rule is capricious if it is adopted without thought or reason or is irrational”

The DEP has stated that “The percentage of testable mechanical backflow preventers failing to function properly during any year typically ranges between 10% to 40%.” This “10% to 40%” failure rate averages out to a 25% yearly failure rate. A backflow valves’ failure rate of 1 out of 4 (25%) to “function properly” to protect a public water system from contamination is very troubling, from both a safety and liability standpoint.

I am unable to conceive of any discipline concerned with the safety of citizens, including airplanes, railroads, highways, automobiles, condoms and birth control pills that would abide such a horrific failure rate of 25%!

It is capricious, i.e. without thought, reason or rationality, for the Plumbing TAC to keep RPs and DCs in the Plumbing Code knowing full well that **they will not provide any meaningful protection.**

It is capricious, i.e. without thought, reason or rationality, for the Plumbing TAC to keep RPs and DCs in the Plumbing Code knowing full well that **they provide terrorists with the means to easily access and contaminate public drinking water supplies.**

It is capricious, i.e. without thought, reason or rationality, for the Plumbing TAC to keep RPs and DCs in the Plumbing Code knowing full well that **they violate a number of federal anti-terrorism laws.**

It is capricious, i.e. without thought, reason or rationality, for the Plumbing TAC to keep RPs and DCs in the Plumbing Code knowing full well that **they violate a number of sections of the Florida Statutes.**

The Plumbing TAC's Liability & Responsibility

Finally, there is the very important question of liability. If the Plumbing TAC allows RP's and DC's to remain in the Plumbing Code, there will be many far reaching questions of liability and responsibility.

For example, one obvious question is:

Who is negligently liable for personal injury, wrongful death, property damage, and damages for business interruption if when a terrorist will be using a homeowner's "*Plumbing TAC ordained*" backflow RP or DC valve in the middle of the night to contaminate the neighborhood's public drinking water supply that poisons several of the homeowner's neighbors causing sickness and death?

Courts have held that state government entities can claim immunity and avoid lawsuits. However, one exception to this is **in the case of negligence**. And it is common for individuals or groups to sue state government entities when negligence is involved.

Of much greater concern to the Plumbing TAC must be that **federal** anti-terrorism laws are being violated. No doubt any wrongful death suit would be filed in federal court, where, unlike state courts, there are no restraints on how large a judgment a jury may award. I can imagine the jury's seeing very gruesome photographs of citizens who died from contamination of the public drinking water supply, with those contaminants introduced through "Plumbing TAC sanctioned" RPs and DCs.

Would the court decide that the Plumbing TAC is one of the defendants that would be included in a negligence law suit? – probably!

All of the members of the Plumbing TAC would certainly be guilty of negligence because all of you are very much aware that RPs and DCs do provide direct access into the public drinking water supply for terrorists to contaminate a water utility's drinking water distribution system with easily available over-the-counter deadly farm chemicals (like Othene) and biological agents & toxins (like *e coli* in poop).

Citizens are being forced by the Plumbing TAC to install devices that are not allowed by a number of federal anti-terrorism laws and by the Florida Statutes and that provide terrorists with the means to easily access and contaminate public water supplies.

It would be tragic if RPs and DCs are left in the Plumbing Code by the Plumbing TAC and the net results of your decision are residential terrorist contamination incidents that result in the deaths of men, women and children!

The Florida Department of Environmental Protection is faced with the same dilemma as they revise 62-555 F.A.C., which includes references to residential RPs and DCs. Will they include RPs and DCs in their regulations and subject themselves to class-action wrongful death lawsuits in federal court after contamination incidents through RPs and DCs that result in the injury or death of Floridians?

But you don't need to be the party to such negligence because times have changed!

The events of “9-11” spawned many federal anti-terrorism laws which mandate that RPs and DCs are **totally unacceptable** in residential areas.

RP's and DC's are dinosaurs of the past!
IT'S TIME TO MOVE ON!

The following sentence must be added to Building Code Section 608.13.2 and to Building Code Section 608.13.7, to bring them into compliance with federal anti-terrorism laws:

“These devices shall not be installed in residential areas.”

Thank you,



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¹ www.backflowvideos.org/video10H.wmv

² www.backflowvideos.org/method2.wmv

³ www.backflowvideos.org/method3a.wmv

⁴ www.backflowvideos.org/video17H.wmv

⁵ www.backflowvideos.org/show

Date Submitted	7/10/2012	Section	610	Proponent	Suzanne Davis
Chapter	6	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	Yes
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Related Modifications**Summary of Modification**

Update section 610.1 Plumbing to implement FBC approved plan for 2013 code

Rationale

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

5064-A2

Proponent Joe Bigelow **Submitted** 12/6/2012 **Attachments** Yes

Rationale

Mod 5064 recieved "NAR" to allow staff to fix the term "Administrative Authority" with a better term. The alternate language provides for the term "Authority Having Jurisdiction"

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

Impact to building and property owners relative to cost of compliance with code

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

Impact to industry relative to the cost of compliance with code

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

Consistent with State agencies regulations and to implement the FBC process for the 2013 FBC.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

P5064-G1

Proponent Ken Cureton **Submitted** 9/21/2012 **Attachments** No

Comment:

The proposal clarifies the authority having jurisdiction with regard to disinfection of potable water systems.

Proponent	BOAF CDC	Submitted	9/23/2012	Attachments	No
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P5064-G2

Comment:

What State Agencies and where are the specific requirements, statute, rule, or guideline?

This code change is unnecessary as the provisions contained in the proposed amendment are adequately addressed in the applicable international code. Per FS 553.73 (7) (g)

The amendment does not demonstrate by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code. Per FS 553.73 (7) (g)

The proposed amendment was does not appear to have been submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process.

610.1 General. New or repaired potable water systems shall be purged of deleterious matter and, where required by the Administrative Authority, disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to “on-site” or “in-plant” fabrication of a system or to a modular portion of a system.

[No change to 1 – 4 of the IPC]

610.1 General. New or repaired potable water systems shall be purged of deleterious matter and, where required by the Administrative Authority Having Jurisdiction, disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to “on-site” or “in-plant” fabrication of a system or to a modular portion of a system.

[No change to 1 – 4 of the IPC]

Date Submitted	7/10/2012	Section	Referenced Standards	Proponent	Suzanne Davis
Chapter	13	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	Yes
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Related Modifications

Summary of Modification

Update section Referenced Standards Plumbing to implement FBC approved plan for 2013 code

Rationale

To be consistent with FS and to implement FBC approved plan for 2013 code.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to building and property owners relative to cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.
- Impact to industry relative to the cost of compliance with code**
No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Carried over from previous field tested code. Proven to be effective.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Carried over from previous field tested code. Proven to be effective.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Carried over from previous field tested code. Proven to be effective.
- Does not degrade the effectiveness of the code**
Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?
YES

The provisions contained in the proposed amendment are addressed in the applicable international code?
NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?
OTHER

Explanation of Choice
To be consistent with FS and to implement FBC approved plan for 2013 code.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?
NO

2nd Comment Period

10/31/2012 - 12/14/2012

5070-A1

Proponent Joe Bigelow **Submitted** 12/6/2012 **Attachments** Yes

Rationale

Mod 5070 recieved "NAR" to allow staff to change the agency addres to North Monroe

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

To be consistent with FS and to implement FBC approved plan for 2013 code.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

1st Comment Period History

08/09/2012 - 09/23/2012

P5070-G1

Proponent BOAF CDC **Submitted** 9/23/2012 **Attachments** No

Comment:

This should be in Chapter 14

Florida Codes

Florida Building Commission

c/o Florida Department of Business and Professional Regulation

Building Codes and Standards

2555 Shumard Oak Boulevard

Tallahassee, Florida 32399-2100

<u>Standard</u>	<u>Referenced in code</u>
<u>Reference Number Title</u>	<u>section number</u>
<u>FBC-B 2013 Florida Building Code, Building</u>	<u>201.3, 305.4, 307.1, 307.2, 307.3, 308.2, 309.1, 310.1, 310.3, 315.1, 403.1, Table 403.1,</u>
	<u>404.1, 407.3, 417.6, 502.6, 606.5.2, 1106.5</u>
<u>Ch. 11 Florida Building Code, Building - Accessibility</u>	<u>404.1.1 315.1</u>
<u>Ch. 553.86 Florida Statute, Public Restrooms</u>	<u>403.1.1</u>
<u>Florida Building Code, Energy Conservation</u>	<u>313.1, 607.2, 607.2.1</u>
<u>Ch. 27 Florida Building Code, Building-Electrical (National Electrical Code, NFPA 70)</u>	
	<u>201.3, 502.1, 504.3, 1113.1.3</u>
<u>FEBC—2013 Florida Existing Building Code</u>	<u>101.2</u>
<u>FBC-FG 2013 Florida Building Code, Fuel Gas</u>	<u>101.2, 201.3, 502.1</u>
<u>FBC-M 2013 Florida Building Code, Mechanical</u>	<u>201.3, 307.6, 310.1, 422.9,</u>
	<u>502.1, 612.1, 1202.1</u>
<u>FRC-2013 Florida Residential Code</u>	<u>101.2</u>
<u>FFPC-2013 Florida Fire Prevention Code</u>	<u>201.3, 1201.1</u>

Florida CodesFlorida Building Commissionc/o Florida Department of Business and Professional RegulationBuilding Codes and Standards~~2555 Shumard Oak Boulevard~~ 1940 North Monroe StreetTallahassee, Florida 32399-2100

<u>Standard</u>	<u>Referenced in code</u>
<u>Reference Number Title</u>	<u>section number</u>
<u>FBC-B 2013 Florida Building Code, Building</u>	<u>201.3, 305.4, 307.1, 307.2, 307.3, 308.2, 309.1, 310.1, 310.3, 315.1, 403.1, Table 403.1,</u>
	<u>404.1, 407.3, 417.6, 502.6, 606.5.2, 1106.5</u>
<u>Ch. 11 Florida Building Code, Building - Accessibility</u>	<u>404.1.1 315.1</u>
<u>Ch. 553.86 Florida Statute, Public Restrooms</u>	<u>403.1.1</u>
<u>Florida Building Code, Energy Conservation</u>	<u>313.1, 607.2, 607.2.1</u>
<u>Ch. 27 Florida Building Code, Building-Electrical (National Electrical Code, NFPA 70)</u>	
	<u>201.3, 502.1, 504.3, 1113.1.3</u>
<u>FEBC—2013 Florida Existing Building Code</u>	<u>101.2</u>
<u>FBC-FG 2013 Florida Building Code, Fuel Gas</u>	<u>101.2, 201.3, 502.1</u>
<u>FBC-M 2013 Florida Building Code, Mechanical</u>	<u>201.3, 307.6, 310.1, 422.9,</u>
	<u>502.1, 612.1, 1202.1</u>
<u>FRC-2013 Florida Residential Code</u>	<u>101.2</u>
<u>FFPC-2013 Florida Fire Prevention Code</u>	<u>201.3, 1201.1</u>

Date Submitted	7/10/2012	Section	Plumbing Fee Schedule	Proponent	Suzanne Davis
Chapter	3201	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	No
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Related Modifications**Summary of Modification**

Update the Appendix A Plumbing to implement FBC approved plan for 2013 code

Rationale

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

2nd Comment Period10/31/2012 - 12/14/2012

Proponent	Ken Cureton	Submitted	12/11/2012	Attachments	No
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Comment:

Mod was recorded as NAR. Staff requests that the TAC support the original proposal due to the fact that retaining the appendix is inconsistent with Florida Statutes.

P5074-G2**1st Comment Period History**08/09/2012 - 09/23/2012

Proponent	Ken Cureton	Submitted	9/21/2012	Attachments	No
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Comment:

The Commission has no authority to adopt an appendix as an option for local adoption.

P5074-G1

Appendix A: Plumbing Permit Fee Schedule. Change to read as shown.

APPENDIX A: Plumbing Fee Schedule. Reserved.

Date Submitted	7/10/2012	Section	Vacuum Drainage System	Proponent	Suzanne Davis
Chapter	3203	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	No
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Related Modifications**Summary of Modification**

Update section Appendix C to implement FBC approved plan for 2013 code.

Rationale

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Codes.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Codes.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

2nd Comment Period10/31/2012 - 12/14/2012

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Proponent	Ken Cureton	Submitted	12/11/2012	Attachments	No
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Comment:

Mod was recorded as NAR. Staff requests that the TAC support the original proposal due to the fact that retaining the appendix is inconsistent with Florida Statutes.

P5075-G2**1st Comment Period History**08/09/2012 - 09/23/2012

Proponent	Ken Cureton	Submitted	9/21/2012	Attachments	No
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Comment:

The Commission has no authority to adopt an appendix as an option for local adoption.

P5075-G1

Appendix C

Vacuum Drainage System. Reserved.

Date Submitted	7/10/2012	Section	Appendix F	Proponent	Suzanne Davis
Chapter	3206	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation with a Second				
Commission Action	Pending Review				

Comments

General Comments	Yes	Alternate Language	No
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Related Modifications**Summary of Modification**

Update section Appendix F Plumbing to implement FBC approved plan for 2013 code

Rationale

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to building and property owners relative to cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Impact to industry relative to the cost of compliance with code

No impact. Currently used under the 2010 FBC. No new requirements being established.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Carried over from previous field tested code. Proven to be effective.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Carried over from previous field tested code. Proven to be effective.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Carried over from previous field tested code. Proven to be effective.

Does not degrade the effectiveness of the code

Carried over from previous field tested code. Proven to be effective.

Is the proposed code modification part of a prior code version?

YES

The provisions contained in the proposed amendment are addressed in the applicable international code?

NO

The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variation addressed by the foundation code and why the proposed amendment applies to the state?

OTHER

Explanation of Choice

To be consistent with FBC policies in regard to treatment of appendices. Policy has been to reserve the majority of the appendices in the I-Code.

The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process?

NO

2nd Comment Period10/31/2012 - 12/14/2012

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Proponent	Ken Cureton	Submitted	12/11/2012	Attachments	No
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Comment:

Mod was recorded as NAR. Staff requests that the TAC support the original proposal due to the fact that retaining the appendix is inconsistent with Florida Statutes.

P5076-G2**1st Comment Period History**08/09/2012 - 09/23/2012

Proponent	Ken Cureton	Submitted	9/21/2012	Attachments	No
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Comment:

The Commission has no authority to adopt an appendix as an option for local adoption.

P5076-G1

Appendix F

Structural Safety. Reserved