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**VIRTUAL/TELECONFERENCE  
PLUMBING CODE ADVISORY COMMITTEE MEETING  
Virtual, 4822 Madison Yards Way, Madison  
Contact: Brad Wojciechowski (608) 266-2112  
September 28, 2021**

*The following agenda describes the issues that the Committee plans to consider at the meeting. At the time of the meeting, items may be removed from the agenda. Please consult the meeting minutes for a record of the actions of the Committee.*

**AGENDA**

**10:00 A.M.**

**OPEN SESSION – CALL TO ORDER – ROLL CALL**

**A. Adoption of Agenda (1-2)**

**B. Approval of Minutes for August 24, 2021 (3-4)**

**C. Reminders: Scheduling Concerns**

- 1) Attendance Conflicts Impacting September 28, 2021 Meeting
- 2) Attendance Confirmation for October 27, 2021 Meeting

**D. Administrative Matters – Discussion and Consideration**

- 1) Committee, Department and Staff Updates

**E. Administrative Rule Matters – Discussion and Consideration (5)**

- 1) Review of Plumbing Code Changes **(6-29)**
  - a. SPS 381 – Definitions and Standards
  - b. SPS 382 – Design, Construction, Installation, Supervision, Maintenance, and Inspection of Plumbing
  - c. SPS 384 – Plumbing Products
  - d. IECC C404

**F. Public Comments**

**ADJOURNMENT**

**NEXT MEETING: OCTOBER 27, 2021**

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MEETINGS AND HEARINGS ARE OPEN TO THE PUBLIC, AND MAY BE CANCELLED WITHOUT NOTICE.

Times listed for meeting items are approximate and depend on the length of discussion and voting. All meetings are held at 4822 Madison Yards Way, Madison, Wisconsin, unless otherwise noted. In order to

confirm a meeting or to request a complete copy of the board's agenda, please call the listed contact person. The board may also consider materials or items filed after the transmission of this notice. Times listed for the commencement of disciplinary hearings may be changed by the examiner for the convenience of the parties. Requests for interpreters for the deaf or hard of hearing, or other accommodations, are considered upon request by contacting the Affirmative Action Officer, 608-266-2112, or the Meeting Staff at 608-266-5439.

**VIRTUAL/TELECONFERENCE  
PLUMBING CODE ADVISORY COMMITTEE  
MEETING MINUTES  
AUGUST 24, 2021**

**PRESENT:** Fred Gardner, Justin Kressin, Roger Musolff, Jason Sladky

**EXCUSED:** Joseph Kiedrowski, Randy Lorge, Spencer Statz

**STAFF:** Brad Wojciechowski, Executive Director; Jameson Whitney, Legal Counsel; Garry Krause, Bureau Director; Tony Martin, Plumbing Plan Reviewer; Glen Schlueter, Plumbing Product Reviewer; Bruce Meiners, Plumbing Consultant; Philip Harkleroad, Section Chief; Ron Soquet, Plumbing Plan Reviewer; Justin Gavin, Integrated Services Section Chief-Commercial Buildings; Brandon Piper, Administrator-Division of Industry Services; Megan Glaeser, Bureau Assistant; and other Department staff

Jason Sladky, Chairperson, called the meeting to order at 10:00 a.m. A majority of four (4) members was present.

**ADOPTION OF AGENDA**

**Amendments to the Agenda**

- **Remove** item “F. Public Agenda Requests – Discussion and Consideration, 1) Proposed Commercial Energy Code Amendments, 1. Horticultural Lighting Efficacy

**MOTION:** Justin Kressin moved, seconded by Fred Gardner, to adopt the Agenda as amended. Motion carried unanimously.

**APPROVAL OF MINUTES OF JULY 27, 2021**

**MOTION:** Jason Sladky moved, seconded by Fred Gardner, to approve the Minutes of July 27, 2021 as published. Motion carried unanimously.

**ADMINISTRATIVE RULE MATTERS**

**Plumbing Code Changes**

**MOTION:** Roger Musolff moved, seconded by Justin Kressin, to recommend approval of SPS 381 Definitions and Standards (sections Table 381.20-5, Table 381.20-7, Table 381.20-11, Table 381.20-3e, 381.20-4, 381.01(117), 381.01(M), 381.xx (definition of “hose connection splitter”)) as outlined in the 8/24/2021 agenda materials with appropriate notes. Motion carried unanimously.

**MOTION:** Justin Kressin moved, seconded by Roger Musolff, to recommend approval of SPS 382 Design, Construction, Installation, Supervision, Maintenance, and Inspection of Plumbing (sections A-382.30(11)(d) Table A, Table 382.40-9, Table 382.30-1, 382.32(3)(c)3, 382.41(4)(k)2, 382.41(5)3.a, 382.41(3)(b)5.c, 382.50(3)(b)11, 382.60(2), 382.70(4), 382.20, 382.33(8)(d)3, 382.35(3)(f), 382.37(3)(b)2. a. and b, 382.36(14),

382.31(17)(d), 382.33(9)(f)2 (renumbered to 382.36(14)(c)2), 382.33(9)(f)4 (renumbered to 382.36(14)(c)3), 382.33(9)(f)5 (renumbered to 382.36(14)(d)2), 382.36(8)(a)2, 382.36(8)(a)2.c, 382.35(3)(a), 382.36(12)(b)2.a) as outlined in the 8/24/2021 agenda materials with appropriate notes. Motion carried unanimously.

**MOTION:** Roger Musolff moved, seconded by Justin Kressin, to recommend approval of SPS 384 Plumbing Products (sections 384.20(5)(L), Table 384.30-7 and 8, Table 384.30-10, Table 384.11, Table 384.10, 384.25(1)(a), 384.40(6)(b), 384.40(14)(b), 384.20(6)(d), 384.30(3)(e)3, 384.20(4)(b)9.b) as outlined in the 8/24/2021 agenda materials with appropriate notes. Motion carried unanimously.

**MOTION:** Fred Gardner moved, seconded by Jason Sladky, to table discussion of sections 381.xx (definition of “revision”)(items 3 and 142), until a future meeting. Motion carried unanimously.

### **ADJOURNMENT**

**MOTION:** Fred Gardner moved, seconded by Jason Sladky, to adjourn the meeting. Motion carried unanimously.

The meeting adjourned at 11:27 a.m.

**State of Wisconsin  
Department of Safety & Professional Services**

**AGENDA REQUEST FORM**

1) Name and title of person submitting the request: Phil Harkleroad		2) Date when request submitted: 09/14/2021 <small>Items will be considered late if submitted after 12:00 p.m. on the deadline date which is 8 business days before the meeting</small>	
3) Name of Board, Committee, Council, Sections: Plumbing Code Advisory Committee			
4) Meeting Date: 09/28/2021	5) Attachments: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6) How should the item be titled on the agenda page? Administrative Rule Matters 1. Review of Plumbing Code Changes under SPS 381, 382, 384	
7) Place Item in: <input checked="" type="checkbox"/> Open Session <input type="checkbox"/> Closed Session		8) Is an appearance before the Board being scheduled? <i>(If yes, please complete <a href="#">Appearance Request</a> for Non-DSPS Staff)</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9) Name of Case Advisor(s), if required:
10) Describe the issue and action that should be addressed: 1. Review of Draft review table for SPS (pdf) 2. Member questions, issues, etc.			
11) <b>Authorization</b> _____ 09/14/2021 _____ Signature of person making this request <span style="float: right;">Date</span> Philip Harkleroad _____ Supervisor (if required) <span style="float: right;">Date</span> _____ Executive Director signature (indicates approval to add post agenda deadline item to agenda) <span style="float: right;">Date</span> _____			
Directions for including supporting documents: 1. This form should be attached to any documents submitted to the agenda. 2. Post Agenda Deadline items must be authorized by a Supervisor and the Policy Development Executive Director. 3. If necessary, provide original documents needing Board Chairperson signature to the Bureau Assistant prior to the start of a meeting.			

Wisconsin Department of Safety and Professional Services

Plumbing Code Advisory Committee Plumbing Code Rule Recommendations for SPS Chapters 305, 381 to 387

**DRAFT – SUBJECT TO CHANGE**

*THIS DOCUMENT IS NOT A RULE DRAFT OR THE OFFICIAL MEETING MINUTES OF THE PLUMBING CODE ADVISORY COMMITTEE.*

Meeting minutes and agendas may be viewed [HERE](#).

SPS 382						
NO.	RULE PROVISION	ISSUE/REASON FOR CHANGE	PROPOSED BY	EXISTING LANGUAGE AND PROPOSED CHANGE	POTENTIAL IMPACT/COST	COMMENTS/STATUS
					9/22/2021	
				<b>Document for September 28, 2021 meeting</b>		
				<b>Submit September 14<sup>th</sup>.</b>		

NO.	RULE PROVISION	ISSUE/REAS ON FOR CHANGE	PROPOSED BY	EXISTING LANGUAGE AND PROPOSED CHANGE	POTENTIAL IMPACT/COST	COMMENTS/STATUS
56.	382.50 (3) (B) 6.	CODIFYING CURRENT PRACTICE.  NOTE TO DPD: REPEAL B., CREATE BM. TO E., AND RENUMBER C. TO F.	DIS, AMENDED BY PAC	6. HOT WATER DISTRIBUTION SYSTEMS <u>MAY NOT INCLUDE A HEAT RECOVERY SYSTEM AND</u>  SHALL BE INSTALLED AND MAINTAINED TO PROVIDE BACTERIAL CONTROL <u>DISINFECTION</u> BY ONE OF THE FOLLOWING METHODS: A. WATER STORED AND CIRCULATION INITIATED AT A MINIMUM OF 140°F AND WITH A RETURN OF A MINIMUM OF 124°F. B. WATER CHLORINATED AT 2 MG/L RESIDUAL. <del>NOTE: ADDITIONAL INFORMATION MAY BE CONTAINED IN ASHRAE GUIDELINE 12-2000, MINIMIZING THE RISK OF LEGIONELLOSIS ASSOCIATED WITH BUILDING WATER SYSTEMS. THIS STANDARD IS PUBLISHED BY THE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE); 1791 TULLIE CIRCLE, N.E., ATLANTA, GA 30329, PHONE: (800) 5-ASHRAE OR (404) 636-8400 EXT. 507; FAX: (404) 321-5478; E-MAIL: ORDERS@ASHRAE.ORG; OR ONLINE AT WWW.ASHRAE.ORG.</del> <u>E. F. ANOTHER DISINFECTION SYSTEM METHOD APPROVED BY THE DEPARTMENT.</u> <u>NOTE: SEE EXPLANATORY INFORMATION FOR FURTHER INFORMATION.</u>	SIGNIFICANT IMPACT - ADDED EXPENSE	BRUCE
56A.	382.50 (3) (B) 6. <u>BM.</u> <u>TO E.-F.</u>	CREATE bm. to e. f.		bm. <u>CHLORIDE DIOXIDE.</u> d. <u>0.5 CHLORINE</u> e. <u>CHLORAMINE.</u> f. <u>ANOTHER DISINFECTION SYSTEM APPROVED BY THE DEPARTMENT OR UTILIZING DISINFECTANT PROVIDED BY THE MUNICIPALITY ...</u>		BRUCE

	<u>SPS 382.33(9)(f)</u>			<u>382.33(9)(f) Elevator drains. See SPS 382.36(14)</u>		GIVES REFERENCE TO NEW LOCATION  BRUCE
	<u>SPS 382.33(9)(f) 1.</u>			<del>1. All drains serving elevator pits shall discharge to the storm drain system as specified in S. <u>SPS 382.36 (4)</u></del>		MOVED TO SPS 382.36(14)  BRUCE
	<u>SPS 382.33(9)(f) 3.</u>			<del>3. A sump may not be located in an elevator machine room.</del>		MOVED TO SPS 382.36(14)  BRUCE
51D.	382.50 (3) (B) INTRO. AND 1.	REVISE 1. AND CREATE A. AND 1. TO 5.  Based on former MOU with DHS, codifies requirements	DIS	(b) <u>HOSPITAL, COMMUNITY-BASED RESIDENTIAL FACILITY, INPATIENT HOSPICE, AND NURSING HOME WATER SUPPLY SYSTEMS.</u> 1. water supply systems serving a hospital, community-based residential facility, inpatient hospice, or nursing home, <u>or additions to the facilities without a building division as defined by the department of health services</u> , shall comply with all of the following: <u>a. Facilities with a population exceeding 250 occupants shall have a water management plan. the management plan shall include all of the following:</u> <u>1. An emergency water contingency plan program on the loss or contamination of the water supply.</u> <u>2. A pathogen control plan.</u> <u>3. The emergency and routine disinfection procedures.</u> <u>4. The identity of the individual responsible for the water quality.</u> <u>5. The provisions for the periodic flushing of the water supply system.</u> <u>6. Balancing valve report for the hot water distribution system.</u>  (DPD TO RENUMBER IN ACCORDANCE WITH DRAFTING RULES)	7 STEPS OF A WATER MANAGEMENT CONTROL PROGRAM. ALIGN WITH ASHRAE 188.	BRUCE





<p>156</p> <p>TABLES 381.20-3E, 381.20-X (ASPE), 381.20-5 AND 384.11</p> <p>382.36 (3) (D)</p> <p>382.36 (10)</p>	<p><u>381.01(218A)</u></p>	<p>UPDATE &amp; EXPAND</p>	<p>DSPS/GLENS.</p>	<p><u>381.01(218A):</u>  <u>"SIPHONIC ROOF DRAIN SYSTEM" MEANS A DRAINAGE SYSTEM DESIGNED TO RECEIVE WATER COLLECTING ON A ROOF SURFACE VIA NEGATIVE PRESSURE CONDITIONS CREATED BY ROOF DRAINS THAT ALLOW WATER TO ENTER THE STORMWATER PIPING SYSTEM WHILE MINIMIZING THE INGRESS OF AIR, GENERATING A NEGATIVE DIFFERENTIAL FLUID PRESSURE WITHIN THE PIPING SYSTEM THEREBY INDUCING FULL-BORE FLOW (I.E., PIPE THEORETICALLY 100% CHARGED) WITHOUT PIPE GRADIENT (I.E., PITCH).</u></p> <p><u>ASME/ANSI A112.6.9-2005 (R2015) OR ASTM/ANSI F2021-17</u></p> <p><u>ASPE/ANSI 45-2018.</u></p> <p><u>ASME/ANSI A112.6.4-2003 (R2012)</u></p> <p><u>382.36 (3) (D):</u>  <u>(D) ROOF STRUCTURES. ROOF STRUCTURES SERVED BY CONTROLLED FLOW ROOF DRAINAGE SYSTEMS SHALL BE ENGINEERED IN ACCORDANCE WITH IBC SECTION 1611.3.</u></p> <p><u>382.36 (10) ROOF DRAINS:</u></p> <p>a. <u>CONVENTIONAL ROOF, DECK AND BALCONY DRAINS SHALL CONFORM TO ASME A112.6.4-2003 (R2012) AND:</u></p> <ol style="list-style-type: none"> <li>1. <u>ROOF DRAINS SHALL BE EQUIPPED WITH STRAINERS EXTENDING ≥ 4 INCHES ABOVE THE SURFACE OF THE ROOF IMMEDIATELY ADJACENT TO THE ROOF DRAIN. STRAINERS SHALL HAVE AN AVAILABLE INLET AREA ABOVE THE ROOF ≥ 1.5 TIMES THE AREA OF THE CONDUCTOR TO WHICH THE DRAIN CONNECTS.</u></li> <li>2. <u>ROOF DRAIN STRAINERS USED ON SUN DECKS, OPEN PARKING DECKS AND SIMILAR AREAS SHALL BE OF THE FLAT SURFACE TYPE, SHALL BE LEVEL WITH THE DECK AND SHALL HAVE AN AVAILABLE INLET AREA ≥ 2 TIMES THE AREA OF THE CONDUCTOR TO WHICH THE DRAIN CONNECTS.</u></li> </ol> <p>b. <u>SIPHONIC ROOF DRAINS SHALL CONFORM TO ASME A112.6.9-2005 (R2015) OR ASTM F2021-17 AND BE INDELIBLY MARKED WITH THE FOLLOWING MINIMUM INFORMATION:</u></p> <ol style="list-style-type: none"> <li>1. <u>THE DOME, BODIES, AND BAFFLE PLATES SHALL BE MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK.</u></li> <li>2. <u>THE BAFFLE PLATE AND DRAIN BODY SHALL BE MARKED WITH THE BAFFLE PLATE MODEL NUMBER, RESISTANCE VALUE, K, AND WORDS, "REPLACE MISSING BAFFLE WITH MODEL _____."</u></li> </ol> <p>c. <u>CONTROLLED FLOW ROOF DRAINS.</u></p> <ol style="list-style-type: none"> <li>1. <u>APPLICATION. IN LIEU OF SIZING THE ROOF DRAIN PIPING ON THE BASIS OF ACTUAL MAXIMUM HORIZONTAL ROOF AREAS AS SPECIFIED IN SUB. (5)(A)1., THE ROOF DRAIN</u></li> </ol>	<p>SAVINGS OF TIME AND \$</p>	<p>UPDATES AND EXPANDS CODE-BASED ROOF DRAIN OPTIONS BASED ON ANSI ACCREDITED PERFORMANCE AND DESIGN STANDARDS, ELIMINATES ALTERNATE APPROVALS, SIMPLIFIES PLAN REVIEW</p> <p>SIPHONIC ROOF DRAINS</p> <p>SIPHONIC ROOF DRAINAGE SYSTEM DESIGNS</p> <p>CONVENTIONAL ROOF, DECK AND BALCONY DRAINS</p>
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PIPING MAY BE SIZED BASED ON THE EQUIVALENT ADJUSTED MAXIMUM HORIZONTAL PROJECTED ROOF AREAS WHICH RESULT FROM CONTROLLED FLOW AND STORAGE OF STORM WATER ON THE ROOF.

2. ROOF STRUCTURES. ROOF STRUCTURES SERVED BY CONTROL FLOW ROOF DRAINAGE SYSTEMS SHALL BE ENGINEERED IN ACCORDANCE WITH IBC SECTION 1611.3.
3. INSTALLATION. CONTROL OF STORM WATER RUNOFF SHALL BE BY CONTROL DEVICES. CONTROL DEVICES SHALL BE PROTECTED BY STRAINERS.
4. SIZING.  $\geq 2$  DRAINS SHALL BE INSTALLED ON ROOF AREAS  $\leq 10,000$  FT.<sup>2</sup> IN AREA AND  $\geq 4$  DRAINS ON ROOFS  $> 10,000$  FT.<sup>2</sup> IN AREA.
5. THE WATER FROM A 10-YEAR, 24-HOUR STORM EVENT SHALL NOT BE STORED ON THE ROOF FOR  $> 24$  HOURS.

d. SECONDARY ROOF DRAINS.

1. SIZING. WHEN SECONDARY ROOF DRAIN SYSTEMS ARE INSTALLED, THE SECONDARY SYSTEM SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS IN THIS SECTION.
2. PROHIBITED CONNECTION. SECONDARY ROOF DRAIN SYSTEMS MAY NOT BE CONNECTED TO PRIMARY ROOF DRAIN SYSTEMS.
3. DISCHARGE. ALL SECONDARY ROOF DRAIN SYSTEMS SHALL DISCHARGE IN ACCORDANCE WITH TABLE 382.38-1.
4. THE OPENING FOR THE SECONDARY ROOF DRAINAGE SHALL BE  $\geq 2$  IN. (51 MM) AND  $\leq 4$  IN. (102 MM) ABOVE THE BOTTOM OPENING OF THE PRIMARY ROOF DRAIN.
5. OVERFLOW DRAINS. SECONDARY OVERFLOW DRAINS AND OVERFLOW STANDPIPES RIM ELEVATIONS SHALL BE  $\geq 2$  IN. AND  $< 4$  IN. ABOVE THE BOTTOM ELEVATION OF THE PRIMARY ROOF DRAINS.
6. ROOF STRUCTURES. ROOF STRUCTURES SERVED BY CONTROL FLOW ROOF DRAINAGE SYSTEMS SHALL BE ENGINEERED IN ACCORDANCE WITH IBC SECTION 1611.3.

e. THE DESIGN OF CONTROLLED FLOW AND SIPHONIC ROOF DRAINAGE SYSTEMS SHALL CONFORM TO ASPE 45-2018.

**(10) ROOF DRAINS. (A) GENERAL ROOFS. ROOF DRAINS SHALL BE EQUIPPED WITH STRAINERS EXTENDING NOT LESS THAN 4 INCHES ABOVE THE SURFACE OF THE ROOF IMMEDIATELY ADJACENT TO THE ROOF DRAIN. STRAINERS SHALL HAVE AN AVAILABLE INLET AREA ABOVE THE ROOF OF NOT LESS THAN 1.5 TIMES THE AREA OF THE CONDUCTOR TO WHICH THE DRAIN CONNECTS. (B) FLAT DECKS. ROOF DRAIN STRAINERS USED ON SUN DECKS, OPEN PARKING DECKS AND SIMILAR AREAS SHALL BE OF THE FLAT SURFACE TYPE, SHALL BE LEVEL WITH THE DECK AND SHALL HAVE AN AVAILABLE INLET AREA OF NOT LESS THAN 2 TIMES THE AREA OF THE CONDUCTOR TO WHICH THE DRAIN CONNECTS.**

THE FORMER  
VERSION →

				<p><b>(11) SECONDARY ROOF DRAINS. (A) SIZING.</b> WHEN SECONDARY ROOF DRAIN SYSTEMS ARE INSTALLED THE SECONDARY SYSTEM SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS IN THIS SECTION.</p> <p><b>(B) PROHIBITED CONNECTION.</b> SECONDARY ROOF DRAIN SYSTEMS MAY NOT BE CONNECTED TO PRIMARY ROOF DRAIN SYSTEMS.</p> <p><b>(C) DISCHARGE.</b> ALL SECONDARY ROOF DRAIN SYSTEMS SHALL DISCHARGE IN ACCORDANCE WITH TABLE 382.38-1.</p>		

DRAFT



				<u>Inspect and verify integrity of mulch basins</u> <u>Cross connection control inspection and test</u>	<u>As required to prevent ponding, runoff and maintain mulch depth</u> <u>At start-up and ≤ 12 months thereafter</u>		
				<p>2. <u>INSTALLATION, OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED TO SYSTEM OWNER AND REMAIN ONSITE. THE MANUAL SHALL CONTAIN THE FOLLOWING MINIMUM INFORMATION:</u></p> <ul style="list-style-type: none"> <li>a. <u>A DETAILED DIAGRAM OF THE SYSTEM SHOWING THE LOCATION OF CRITICAL SYSTEM COMPONENTS.</u></li> <li>b. <u>COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONS.</u></li> <li>c. <u>INSTRUCTIONS ON DEACTIVATING THE SYSTEM FOR MAINTENANCE OR REPAIR.</u></li> <li>d. <u>COMPLETE MANUFACTURERS CONTACT INFORMATION.</u></li> <li>e. <u>MODEL NUMBER.</u></li> <li>f. <u>REPRESENTATIVE SOURCES OF SUPPLY FOR EXPENDABLE SYSTEM COMPONENTS.</u></li> </ul>			
158	382.40(8)(D)7. AND 384.20(5)(R)6.	UPDATE/WDNR REQUEST	WDNR/GLENS.	<p>6. <u>A HYGIENIC SAMPLING VALVES SHALL BE INSTALLED WITHIN 6 FT., UPSTREAM AND DOWNSTREAM, OF A CHEMICAL INJECTION SYSTEM OR WATER TREATMENT DEVICE INSTALLED TO MITIGATE A CONTAMINANT REGULATED UNDER NR 809 AND/OR NR 140 WIS. ADM. CODE.</u></p> <p>6. A. <u>A WATER TREATMENT DEVICE THAT CONSISTS OF 2 OR MORE TREATMENT TANKS SHALL ALSO HAVE A HYGIENIC SAMPLING VALVE BETWEEN EACH TREATMENT TANK.</u></p>			<p>SAMPLING VALVES ARE STIPULATED ON ALL SITE-SPECIFIC WATER TREATMENT APPROVAL LETTERS. THIS CHANGE CODIFIES THAT REQUIREMENT.</p>
159	384.40(16)(A)	UPDATE/CLARIFY	DSPS/GLENS.	<p><u>DIELECTRIC UNIONS SHALL BE INSTALLED AT THE POINT OF CONNECTION OF DISSIMILAR METAL PIPING MATERIALS. DIELECTRIC UNIONS SHALL CONFORM TO ASSE 1079.</u></p>			<p>NECESSARY TO PREVENT GALVANIC CORROSION.</p>
160	TABLES 381.20-11 AND 384.11	UPDATE & EXPAND	DSPS/GLENS.	<p><u>NSF 3-2019</u></p>			<p>COMMERCIAL WAREWASHING EQUIPMENT</p>



<p>161 continued</p>	<p>SPS 382.40(5)( b)</p>	<p>REVISE.</p>	<p>OPTION 1</p>	<p><b>SPS 382.40(5)(b) Temperature maintenance.</b> For application to all commercial buildings. Inclusive of residential buildings with 3 tenants or more, which are 4 stories in height or greater above grade plane. Except as required in SPS 382.50(3)(b), if the developed length of hot water distribution piping from the source of the hot water supply to a plumbing fixture or appliance exceeds <del>100 feet</del> distances in accordance with IECC C404.5.1 as presented on Table C404.5.1 or Per C404.5.2 and C404.5.2.1, a circulation system or self-regulating electric heating cable shall be provided to maintain the temperature of the hot water within the distribution piping.</p> <ol style="list-style-type: none"> <li>1. Except as required in SPS 382.50(3)(b), if a circulation system is used to maintain the temperature, no uncirculated hot water distribution piping may exceed <del>25 feet</del> distances in accordance with IECC C404.5.1 as presented on Table C404.5.1 or Per C404.5.2 and C404.5.2.1, in developed length. Heated-water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe to the water heater. Gravity and thermo-syphon circulating systems are prohibited. Except as required in SPS 382.50(3)(b) Controls for the circulating hot water system pumps shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is not a demand for hot water or shall be designed per C404.6.1 whichever is most restrictive</li> <li>2. Except as required in SPS 382.50(3)(b), if a self-regulating electric heating cable is used to maintain the temperature, the cable shall extend to within 25 feet distances in accordance with IECC C404.5.1 as presented on Table C404.5.1 or Per C404.5.2 and C404.5.2.1, of each fixture or the appliance.</li> <li>3. Water distribution piping conveying circulated water or served by a self-regulating electric heating cable shall be insulated in accordance with chs. <u>SPS 322.44(2)</u>, and <u>SPS 361 to 366</u> or <u>IECC C403</u>. <del>to limit the heat loss at the external surface of the pipe insulation to a maximum of 25 BTUs per hour per square foot for aboveground piping and 35 BTUs per hour per square foot for underground piping. The maximum heat loss shall be determined at a temperature differential, T, equal to the maximum water temperature minus a design ambient temperature no higher than 65° F.</del></li> <li>4. Water distribution piping served by self-regulating electric heating cable shall be identified as being electrically traced in accordance with ch. <u>SPS 316</u>.</li> <li>5. The installation of self-regulating electric heating cable may be subcontracted by a plumber to another trade.</li> </ol> <p>note: see a-382.40 (5) for pipe insulation requirements.</p>	<p>Bruce</p>	
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				<p>(c) Water heaters. all water heaters and safety devices shall be designed and constructed in accordance with s. <a href="#">SPS 384.20 (5) (p)</a>.</p> <p><b>Note:</b> Water heaters are to be installed in accordance with the requirements specified in chs. <a href="#">sps 361</a> to <a href="#">366</a> and chs. <a href="#">sps 320</a> to <a href="#">325</a> with respect to energy efficiency, enclosures, clearances, and venting.</p>		
162	SPS 382.40(5) (bm)	CREATED	OPTION 1	<p><b><u>SPS 382.40(5)(bg) Temperature maintenance.</u></b> for other buildings other than defined in (5)(b). if the developed length of hot water distribution piping from the source of the hot water supply to a plumbing fixture or appliance exceeds 100 feet, a circulation system or self-regulating electric heating cable shall be provided to maintain the temperature of the hot water within the distribution piping.</p> <p><u>1. If a circulation system is used to maintain the temperature, no uncirculated hot water distribution piping may exceed 25 feet in developed length.</u></p> <p><u>2. If a self-regulating electric heating cable is used to maintain the temperature, the cable shall extend to within 25 feet of each fixture or the appliance.</u></p> <p><u>3. Water distribution piping conveying circulated water or served by a self-regulating electric heating cable shall be insulated in accordance with chs. SPS 322.44(2). and SPS 361 to 366 or IECC C403.</u></p> <p><u>4. Water distribution piping served by self-regulating electric heating cable shall be identified as being electrically traced in accordance with ch. SPS 316.</u></p> <p><u>5. The installation of self-regulating electric heating cable may be subcontracted by a plumber to another trade.</u></p>		Bruce
				<p><b>Note:</b> See 382 appendix for charts and details of the amended IECC tables and requirements.</p>		

			<b>OPTION 1</b>	<p><u>SPS 382.40(5)(bm) Hot-water circulating and temperature maintenance systems.</u></p> <ol style="list-style-type: none"> <li><u>1. Automatic controls, temperature sensors and pumps shall be in a location with access. manual controls shall be in a location with ready access.</u></li> <li><u>2. Circulation systems. Hot-water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is not a demand for hot water.</u></li> <li><u>3. Demand recirculation controls. Demand recirculation water systems shall have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance, sensing the presence of a user of a fixture, or sensing the flow of hot or tempered water to a fixture fitting or appliance.</u></li> <li><u>4. Heat trace systems. Electric heat trace systems shall comply with IEEE 515.1. controls for such systems shall be able to automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy. Heat trace shall be arranged to be turned off automatically when there is not a demand for hot water.</u></li> <li><u>5. Controls for hot water storage. The controls on pumps that circulate water between a water heater and a heated-water storage tank shall limit operation of the pump from heating cycle startup to not greater than 5 minutes after the end of the cycle.</u></li> </ol>		
<b>163</b>	<b>382.50(3)(B)</b>	Revise an already approved code change	<b>OPTION 1</b>	<p><b>SPS 382.50(3)(b)4.</b> A hot water distribution system using thermal disinfection, as specified in SPS 382.50(3)(b)6.a., shall be under constant recirculation to provide continuous hot water at each hot water outlet, except that uncirculated hot water distribution piping may not exceed 3 feet in developed length. <u>except for where more restrictive, in accordance with IECC C404.5.1 as presented on table C404.5.1 or Per C404.5.2 and C404.5.2.1.</u></p>		<b>Bruce</b>

				<b>Option two: measured changes in SPS 382.40 to IECC C404.</b>		
<b>164</b>	<b>SPS 381.01(XX).</b>	<b>CREATE. Definition</b>	<b>OPTION 2</b>	<u>SPS 381.01(XX). Public lavatory: Is a lavatory located in a public restroom; located outside of a public restroom; a hand wash sink required by Dept. of Agriculture Trade and Consumer Protection (DATCP), Dept. of Health Services (DHS), National Institute of Health (NIH), or United States Dept. of Agriculture (USDA) are considered public lavatory fixtures.</u>		<b>Bruce</b>

DRAFT

165	SPS 382.40(5)(b)	REVISE	OPTION 2	<p><b>SPS 382.40(5)(b) Temperature maintenance.</b> For application to all commercial buildings. Inclusive of residential buildings with 3 tenants or more, which are 4 stories in height or greater above grade plane. Except as required in SPS 382.50(3)(b), if the developed length of hot water distribution piping from the source of the hot water supply to a plumbing fixture, public lavatory, or appliance exceeds 100 feet the distances in Table 382.40(X) or the maximum pipe distances for a public lavatory may be calculated by the maximum allowable volume of 8 ounces of uncirculated water using Table 382.40(Y). Fixture fittings, fixture supply connectors, and faucets shall not be part of this calculation, a circulation system or self-regulating electric heating cable shall be provided to maintain the temperature of the hot water within the distribution piping.</p> <p>1. Except as required in SPS 382.50(3)(b), if a circulation system is used to maintain the temperature, no uncirculated hot water distribution piping may exceed 25 feet the distances in Table 382.40(X) or the maximum pipe distances for a public lavatory may be calculated by the maximum allowable volume of 8 ounces of uncirculated water using Table 382.40(Y). Fixture fittings, fixture supply connectors, and faucets shall not be part of this calculation in developed length.</p> <p>2. Except as required in SPS 382.50(3)(b), if a self-regulating electric heating cable is used to maintain the temperature, the cable shall extend to within 25 feet of the distances in Table 382.40(X) or the maximum pipe distances for a public lavatory may be calculated by the maximum allowable volume of 8 ounces of uncirculated water using Table 382.40(Y). Fixture fittings, fixture supply connectors, and faucets shall not be part of this calculation of each fixture or the appliance.</p> <p>3. Water distribution piping conveying circulated water or served by a self-regulating electric heating cable shall be insulated in accordance with chs. SPS 322.44(2), and SPS 361 to 366 or IECC C403, to limit the heat loss at the external surface of the pipe insulation to a maximum of 25 BTUs per hour per square foot for aboveground piping and 35 BTUs per hour per square foot for underground piping. The maximum heat loss shall be determined at a temperature differential, T, equal to the maximum water temperature minus a design ambient temperature no higher than 65° F.</p> <p>4. Water distribution piping served by self-regulating electric heating cable shall be identified as being electrically traced in accordance with ch. SPS 316.</p> <p>5. The installation of self-regulating electric heating cable may be subcontracted by a plumber to another trade.</p> <p>note: see a-382.40 (5) for pipe insulation requirements.</p>	Bruce	TABLES X AND Y ARE PLACEHOLDERS
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166	SPS 382.40(5) (bm)		OPTION 2	<p><b>SPS 382.40(5)(bg)</b> <i>Temperature maintenance.</i> for other buildings other than defined in (5)(b). if the developed length of hot water distribution piping from the source of the hot water supply to a plumbing fixture or appliance exceeds 100 feet, a circulation system or self-regulating electric heating cable shall be provided to maintain the temperature of the hot water within the distribution piping.</p> <p>1. If a circulation system is used to maintain the temperature, no uncirculated hot water distribution piping may exceed 25 feet in developed length.</p> <p>2. If a self-regulating electric heating cable is used to maintain the temperature, the cable shall extend to within 25 feet of each fixture or the appliance.</p> <p>3. Water distribution piping conveying circulated water or served by a self-regulating electric heating cable shall be insulated in accordance with chs. SPS 322.44(2). and SPS 361 to 366 or IECC C403.</p> <p>4. Water distribution piping served by self-regulating electric heating cable shall be identified as being electrically traced in accordance with ch. SPS 316.</p> <p>5. The installation of self-regulating electric heating cable may be subcontracted by a plumber to another trade.</p> <p><b>Note:</b> Water heaters are to be installed in accordance with the requirements specified in chs. <a href="#">SPS 361</a> to <a href="#">366</a> and chs. <a href="#">SPS 320</a> to <a href="#">325</a> with respect to energy efficiency, enclosures and venting.</p>		

			<b>OPTION 2</b>	<p><b>SPS 382.40(5)(bm)</b> Hot-water circulating and temperature maintenance systems.</p> <ol style="list-style-type: none"> <li><u>1. Automatic controls, temperature sensors and pumps shall be in a location with access. manual controls shall be in a location with ready access.</u></li> <li><u>2. Circulation systems. Hot-water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is not a demand for hot water.</u></li> <li><u>3. Demand recirculation controls. Demand recirculation water systems shall have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance, sensing the presence of a user of a fixture, or sensing the flow of hot or tempered water to a fixture fitting or appliance.</u></li> <li><u>4. Heat trace systems. Electric heat trace systems shall comply with IEEE 515.1. controls for such systems shall be able to automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy. Heat trace shall be arranged to be turned off automatically when there is not a demand for hot water.</u></li> <li><u>5. Controls for hot water storage. The controls on pumps that circulate water between a water heater and a heated-water storage tank shall limit operation of the pump from heating cycle startup to not greater than 5 minutes after the end of the cycle.</u></li> </ol>		

Table-382.40-(X)

NOMINAL PIPE SIZE (inches)	VOLUME (liquid ounces per foot length)	MAXIMUM PIPING LENGTH (feet)	
		Public lavatory faucets	Other fixtures and appliances
1/4	0.33	24	25
5/16	0.5	16	25
3/8	0.75	12.5	25
1/2	1.5	6	25
5/8	2	4	25
3/4	3	2	25
7/8	4	0.5	25
1	5	0.5	25
1 1/4	8	0.5	25
1 1/2	11	0.5	25
2 or larger	18	0.5	25

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 liquid ounce = 0.030 L, 1 gallon = 128 ounces. Note: Flow rate through 1/4" piping shall be not greater than .5 gpm. The flow rate through 5/16" piping shall be not greater than 1 gpm. The flow rate through 3/8" piping shall be not greater than 1.5 gpm.

OPTION  
2

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Table- SPS 382.40-(Y)

OUNCES OF WATER PER FOOT OF TUBE									
Nominal Size (inches)	Copper Type M	Copper Type L	Copper Type K	CPVC CTS SDR 11	CPVC SCH 40	CPVC SCH 80	PE-RT SDR	Composite ASTM F1281	PEX CTS SDR 9
3/8	1.06	0.97	0.84	N/A	1.17	—	0.64	0.63	0.64
1/2	1.69	1.55	1.45	1.25	1.89	1.46	1.18	1.31	1.18
3/4	3.43	3.22	2.90	2.67	3.38	2.74	2.35	3.39	2.35
1	5.81	5.49	5.17	4.43	5.53	4.57	3.91	5.56	3.91
1 1/4	8.70	8.36	8.09	6.61	9.66	8.24	5.81	8.49	5.81
1 1/2	12.18	11.83	11.45	9.22	13.20	11.38	8.09	13.88	8.09
2	21.08	20.58	20.04	15.79	21.88	19.11	13.86	21.48	13.86

For SI: 1 foot = 304.8 mm, 1 inch = 25.4 mm, 1 liquid ounce = 0.030 L, 1 oz/ft<sup>2</sup> = 305.15 g/m<sup>2</sup>.  
N/A = Not Available.

OPTION  
2

168

Revise an already approved code section.

OPTION  
2

169

**SPS 382.50(3)(b)4.** A hot water distribution system using thermal disinfection, as specified in SPS 382.50(3)(b)6.a., shall be under constant recirculation to provide continuous hot water at each hot water outlet, except that uncirculated hot water distribution piping may not exceed 3 feet in developed length. except for where more restrictive, in accordance with, in accordance with SPS 382.40(5)(b).

170

- SPS 363.0404 Service water heating.
- (1) Time switches. the requirements in IECC section C404.9.2 are not included as part of this chapter.
  - (2) Heat traps. the requirements in IECC section C404.3 are not included as part of this chapter.
  - (3) Pools and spas. the requirements in IECC sections C404.9.2 and C404.9.3 are not included as part of this chapter.
  - (4) Circulation systems. substitute the following wording for the requirements in IECC section C404.6.1: heated water circulation systems shall be provided with a circulation pump. the system return pipe shall be a dedicated return pipe ~~or a cold water supply pipe~~. gravity and thermo-syphon circulation systems shall be prohibited. controls for circulating hot water system pumps shall automatically turn off the pump when the water in the circulation loop is at the desired temperature.
  - (5) Service water-heating system commissioning. the requirements of IECC section C404.11 are not included as part of chs. [SPS 361](#) to [366](#).
  - (6) Heated water supply piping. The requirements in IECC section C404.5 are not included as part of this chapter.
  - (7) Maximum Allowable length Method. The requirements in IECC section C404.5.1 are not included as part of this chapter.
  - (8) Maximum allowable pipe volume method. the requirements in IECC section C404.5.2 are not included as part of this chapter.
  - (9) Water volume determination. The requirements in IECC section C404.5.2.1 are not included as part of this chapter.
  - (10) Heated-water circulating and temperature maintenance systems. The requirements in IECC section C404.6 are not included as part of this chapter.
  - (11) Circulation systems. The requirements in IECC section C404.6.1 are not included as part of this chapter.
  - (12) Demand recirculation controls. The requirements in IECC section C404.6.1.1 are not included as part of this chapter.
  - (13) Heat trace systems. The requirements in IECC section C404.6.2 are not included as part of this chapter.
  - (14) Controls for hot water storage. The requirements in IECC section C404.6.3 are not included as part of this chapter.


**BRUCE**



**THIS IS FOR  
REFERENCE ONLY  
EXPLANATORY  
PURPOSES ONLY**

**PLUMBING  
EXEMPTIONS TO  
THE IECC THROUGH  
SPS 363.0404**



174	SPS 382.37 (2)(G)3.	create	<p>SPS 382.37(2)(g) A supply of water shall be provided to wash down the drain receptor and pad. the water supply shall be:</p> <ol style="list-style-type: none"> <li>1. Provided with cross connection control in accordance with s. sps 382.41; and</li> <li>2. Labeled indicating that the supply is not for drinking purposes.</li> <li>3. The non-potable supply water for the wash down for the drain receptor shall not be located closer than 50' to a potable water supply unless an alternative is approved by the department under s. SPS 382.20(11).</li> </ol> <p>ATCP 79.14(3). STAND ALONE OUTLETS. The operator shall provide a stand-alone outlet that supplies potable water under pressure within 400 feet walking distance from each campsite. No stand- alone outlet for potable water may be located fewer than 50 feet from the outside edge of a sanitary dump station apron unless an alternative is approved by the department under s. ATCP 79.02 (2). For campgrounds or campsites constructed before September 1, 1992, the water supply outlets shall meet the requirements by the rules in effect when the plans and specifications were approved.</p> <p>79.02(2) addresses petition for variance</p>		<p><b>TONY</b></p> <p><b>PROPOSED LANGUAGE CONSISTENT WITH DATCP</b></p> <p><b>ATCP 79.14(3) THIS IS FOR REFERENCE ONLY EXPLANATORY PURPOSES ONLY</b></p>
175	SPS 382.33 (9)(X)X.X	Create	<p>A single residential ventless dryer with a maximum discharge of less than one gpm may discharge into a 2" acw box or standpipe within a dwelling unit. Both the residential acw drain hose and the residential ventless dryer drain hose shall physically fit within the receptor without distortion to either hose.</p>		<p><b>BRUCE</b></p>

176			JEFF IHN PUBLIC AGENDA REQUEST	<p>COMMONLY IN THE DESIGN OF WATER HEATING SYSTEMS WHERE INTERMITTENT “DUMP LOADS”, ARE BASIS OF DESIGN, LARGE STORAGE TANKS ARE UTILIZED WITH RELATIVELY SMALL BTU INPUT WATER HEATERS PROVIDING THE HEAT SOURCE. THE MANUFACTURERS, WITH THE INTENT OF PROVIDING A “UNIVERSAL” PRODUCT, SUPPLY THESE TANKS WITH LARGE PORTS FOR TEMPERATURE AND PRESSURE RELIEF VALVES. DUE TO THE WORDING OF THE CODE, ( RESTRICTIVE DEVICE) THE PORTS CANNOT BE BUSHED DOWN TO ACCEPT A MORE REASONABLY SIZED AND PRICED T &amp; P RELIEF VALVE THAT WOULD BE OTHERWISE CAPABLE OF PROVIDING THE SAFETY FACTOR REQUIRED AS PER SPS382.40(5)(D)1. CONSIDERING THE VALVE <u>AS DESIGNED</u>, IS ABLE TO RELIEVE THE VESSEL AS REQUIRED, SHOULD NOT A BUSHING BE ALLOWED TO BE INSTALLED IN AN OTHERWISE LARGER THAN NEEDED PORT?</p> <p><b>SPS 382.40(5)(D)1. ALL PRESSURIZED STORAGE-TYPE WATER HEATERS AND UNFIRED HOT WATER STORAGE TANKS SHALL BE EQUIPPED WITH ONE OR MORE COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVES. THE TEMPERATURE STEAM RATING OF A COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE OR VALVES SHALL EQUAL OR EXCEED THE ENERGY INPUT RATING IN BTU PER HOUR OF THE WATER HEATER. NO SHUT OFF VALVE OR OTHER RESTRICTING DEVICE MAY BE INSTALLED BETWEEN THE WATER HEATER OR STORAGE TANK AND THE COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE.</b></p> <p style="text-align: center;"> PublicAgendaReques tForm -2.docx</p>		<p><b>THE DEPARTMENT HAS NO ISSUE WITH A BUSHING BEING INSTALLED AS SPECIFIED BY MANUFACTURE OF THE STORAGE TANK AND MATERIAL IS ACCEPTABLE. SEE NO REASON TO CHANGE THE CODE.</b></p> <p style="text-align: center;">RON</p>

177			FROM DNR	 PublicAgendaReques tForm DNR.docx  Code Requirement already provided in SPS 382.34(15)(d). Provide note in reference to NR 812.37 (4)(B)		TONY/GLEN
178		REVISE FOOTNOTE		 201504271619.pdf  <u>NOTES: NR 810.15(1). (1) CROSS CONNECTION CONTROL PROGRAM. IN ORDER TO PROTECT THE PUBLIC WATER SUPPLY SYSTEM, THE WATER SUPPLIER FOR EVERY MUNICIPAL WATER SYSTEM SHALL DEVELOP AND IMPLEMENT A COMPREHENSIVE CROSS CONNECTION CONTROL PROGRAM (PARTIAL EXCERPT).</u>		TONY/GLEN  NEED TO CHANGE FOOTNOTE(2) IN 382.40 FROM NR 811.09 TO NR 810.15(1)

179	382.40 (8)(d)3.b.	REVISED	DIS	<p>(d) <i>WATER DISTRIBUTION PIPING</i>. 1. water distribution piping shall be supported in accordance with s. <u>sps 382.60</u>.</p> <p>2. Provisions shall be made to evacuate all water out of the water distribution system.</p> <p>3. a. Except where parallel water meters are installed, water distribution piping shall be provided to bypass a water meter <math>1\frac{1}{2}</math> or larger.</p> <p>b. The minimum diameter of water distribution piping serving as a meter bypass shall <u>be equal to, or may be</u> one nominal pipe size smaller than the meter. <u>The meter bypass shall be sized using the capacity of the material of the adjacent water distribution piping immediately downstream of the water meter.</u></p>		<p><b>RON</b> AGREE TO ADD NEW LANGUAGE</p>
180	SPS382.40 NOTES	CREATED		<p><b>Additional Notes:</b> "(NR811.68) does not allow privately looped water lines unless they have a check valve at each tie in location. It's been our code since 1992. You may want to remind DSPS staff to try to catch these up-front since it gets costly to correct them after the fact."</p> <p><b>NOTE:</b> <u>THE INSTALLATION OF TWO WATER SERVICES OR A PRIVATE WATER MAIN MAY REQUIRE THE INSTALLATION OF A CHECK VALVE. REFER TO CH. NR 811 FOR MORE INFORMATION.</u></p>	<p><b>RON.</b></p>	<p>ADD A NOTE TO SPS 382.40(8)(E)</p>

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