

**ICC 815 Sizing Water Distribution, Drainage and
Venting Standard Consensus Committee (IS-SWDDV)**

Meeting #14 - Minutes

April 18, 2024

Chair: Gary Klein

Vice Chair: Philip Parisi

Secretariat- Ramiro Mata

The fourteenth meeting of the ICC 815 Sizing Water Distribution, Drainage and Venting Standard Consensus Committee (IS-SWDDV) was held on April 18, 2024, in virtual format. The meeting was conducted in accordance with ICC’s Consensus Procedures. https://www.iccsafe.org/wp-content/uploads/ICC-Consensus-Procedures-ANSI-approved-8_2_21-BOD-apprvd-8_27_21.pdf

1. Welcome – Chairman, Gary Klein, convened the meeting and welcomed attendees at 2:05pm Eastern time along with Staff Secretariat, Ramiro Mata. Mata reminded attendees about the ICC Code of Ethics and the Anti-Trust Policy, both of which can be found on the ICC 815 (IS-SWDDV) webpage. Mata also announced that the meeting will be recorded for internal reference only and that recording by anyone other than ICC staff is prohibited.
2. Roll Call – Klein called the meeting to order with a roll call of ICC 815 (IS-SWDDV) committee members – Symbol indicates present, indicates absent.

Committee Members

Regulator		User		Manufacturer		Builder	
<input checked="" type="checkbox"/>	Jim Richardson	<input checked="" type="checkbox"/>	Esber Andiroglu PhD, PE	<input checked="" type="checkbox"/>	Marcus Elmer	<input checked="" type="checkbox"/>	Dan Buuck
<input checked="" type="checkbox"/>	Richard Grace	<input checked="" type="checkbox"/>	Gary Klein	<input type="checkbox"/>	Dave Parney	<input type="checkbox"/>	Joshua Trujillo
<input checked="" type="checkbox"/>	Terry Haughn	<input checked="" type="checkbox"/>	John Lansing	<input checked="" type="checkbox"/>	Lance MacNevin PE	Consumer	
<input checked="" type="checkbox"/>	Ross Wakefield	<input type="checkbox"/>	Philip Parisi Jr. PE	<input type="checkbox"/>	Kyle Thompson PE	<input checked="" type="checkbox"/>	Tim Keane
		<input checked="" type="checkbox"/>	Tom Wise			SDO/Test Lab	
						<input checked="" type="checkbox"/>	Kathryn (Katie) Foster

ICC Staff – None

Interested Parties and Guests – Frank Schmidt, Drew Rich, Natascha Milesi-Ferretti, Michael Cudahy, David Nickelson, Tania Ullah, Dann Holmes, Trevor Wraight, Rick Lake

3. Quorum and Membership Review - With 13 committee members in attendance, Mata announced the threshold of 9 for quorum was met.
4. Approval of Meeting #14 Minutes from April 18, 2024 – Moved to approve by Richardson, seconded by Lansing – Approved.
5. Agenda Review and Approval – Moved to approve by Lansing, seconded by Foster – Approved.
6. Research Update – Andiroglu/Rich
 - a. Phase II Supply –

- i. Rich provided research updates regarding conferences attended, feedback received at CIBSE Technical Symposium, meetings with Klein in Miami, plans for an upcoming conference in Northampton in August (CIB W062 conference), challenges faced with flow data collection using original flow meters (tough sensors), along with discussions about building demolition dates at Stanford building.
 - ii. Rich expressed concerns about the malfunctioning sensors purchased from a supplier, leading to a significant investment of over \$6,000 in equipment and additional expenses for installation. The committee acknowledged the problem and agreed to hold further discussions offline.
 - iii. Rich provided an update on plans to collect pipe samples from a building scheduled for demolition. They intended to establish sample collection and preservation protocols during upcoming meetings with collaborating institutions such as Adelaide University in Australia and colleagues from Montana.
 - iv. There was a discussion about engaging professionals experienced in sample analysis, particularly related to biofilm research. The committee emphasized the importance of seeking guidance on where and how samples should be collected and stored until analysis.
 - v. A question was raised regarding the cost of purchased flow meters. It was mentioned that while the sensors themselves were relatively inexpensive, there had been a significant overall investment due to issues with functionality.
- b. Phase I DWV – Andiroglu anticipated completion timeline of two to four weeks for the report. A grad student is assisting in this effort.

7. Presentations

- a. Specbuilder – Rick Lake introduced ASTM's Spec Builder platform as part of Integrated Services offered by ASTM International. He provided an overview including account activation process, functionalities such as balloting and collaboration tools within Spec Builder, email settings customization options, access for non-voting members, reminders for participation in ballots among other features.
- b. Building Health and Safety (Dann Holmes)
 - i. Discussed proposed changes to the I code process, emphasizing the need for a health and safety impact section in each code proposal.
 - ii. Highlighted the importance of addressing critical care drain waste inventing systems to minimize hospital-acquired infections. He also mentioned his involvement in chairing the ASPE 82 group that focuses on designing DWV for critical care areas of hospitals.
 - iii. Elaborated on how wastewater systems can facilitate the transmission of harmful organisms within buildings, particularly in critical care areas such as hospitals. He emphasized that these systems pose a significant risk by contributing to antibiotic resistance and potentially harming patients. The speaker referenced experimental models demonstrating how microorganisms can spread across drainage networks within buildings.

- iv. The discussion delved into specific mechanisms through which drains become contaminated, including bacterial movement defying gravity when toilets are flushed and blockages aiding microbial spread across drainage networks in hospitals. Additionally, it was noted that disposing certain substances down sinks could stimulate biofilm growth within drains at alarming rates.
 - v. The conversation shifted towards highlighting antimicrobial resistance (AMR) as a major global health threat with potential economic implications amounting to trillions of dollars by 2050 if not addressed effectively. Also stressed that AMR is projected to cause millions of deaths by 2050 according to reports from reputable sources such as the American Society for Microbiology.
 - vi. The conversation delved into how every part of drain waste vent systems is contaminated with antimicrobial resistant bugs, posing a significant challenge as these microbes cannot be eradicated. It was explained that water hitting a shower drain or sink sieve can lead to aerosol spray back, causing suspended droplets to spread through air ventilation systems within a room.
 - vii. Lansing raised concerns about seal integrity within water traps intended for preventing air passage from sewer systems into occupied spaces. He referenced past incidents such as failed trap seals during outbreaks like SARS, emphasizing potential pathways for contaminants from sewer systems into occupant spaces despite no direct path for air movement through traps.
- c. Non-Pressure Plastic Pipe and Fittings (Trevor Wraight) –
- i. Provided insights into common ASTM standards applicable to PVC DWV (Drainage Waste Vent) piping system fittings such as D2665 and D3311 while also discussing regional material preferences like ABS being more prevalent in northern states compared to PVC DWV's popularity in southern states.
 - ii. Discussed the use of solvent cement in joining PVC DWV systems and ABS systems and detailed the application process of solvent cement to both pipe and fitting, along with a cross-sectional view illustrating how fusion occurs between the pipe and fitting.
 - iii. The discussion covered various types of pipes including SDR pipes, co-extruded pipes, foam core style pipes used in non-pressure drainage and pressure applications.
 - iv. Delved into an extensive showcase of Spears' injection molded fittings offered in their standard catalog such as couplings, repair couplings, female adapters starting at inch-and-a-half size range up through 24 inches.
 - v. Discussed various plumbing fittings and configurations, including double fixture fittings, combination Ys, tailpiece adapters, P-traps, closet flanges with gussets and knockouts for hydro tests. The discussion also covered floor drains with membrane collars for waterproofing membranes and expansion joints used in sanitary installations. Additionally, the conversation touched on large diameter fabricated expansion joints.
8. Working Group Updates
- a. Measurement – Lansing

- i. Lansing discussed shifting focus within the measurement working group towards collecting pipe segments due to time constraints caused by an impending building demolition. He mentioned arranging a roundtable discussion with experts on collecting and storing pipe segments.
 - ii. Andiroglu explained plans to transition data collection efforts from a soon-to-be-demolished building to a newly constructed one with better facilities, emphasizing potential benefits such as access to existing wastewater consumption data.
 - iii. The discussion revolved around integrating sensors into new construction projects without altering designs significantly. Esber highlighted potential collaboration opportunities with university facilities and developers.
 - iv. Lansing inquired about sharing received sanitary drainage flow data within the working group, expressing its potential value. There were considerations regarding permissions required before sharing external research team's data.
 - v. The conversation delved into timelines related to discussing sensor integration in a new building project without impacting its design phase significantly. Esber mentioned aiming for discussions during summer months before construction commences in fall.
 - b. Water Service – Wise
 - i. Wise expressed gratitude to Klein for filling in for them at the April 16 WG meeting and outlined the objectives for the upcoming meeting, including discussions on hygiene and quality definitions as well as selecting dimensions of different components.
 - c. DWV – Lansing
 - i. Reported that he has submitted an abstract for the CIB W062 Symposium in Northampton, UK later this year regarding design guidance for drainage systems. The abstract was accepted. Plan for the next WG meetings is to review the draft guidance.
 - d. Rosetta Stone – MacNevin
 - i. MacNevin detailed their progress in developing tables representing piping information, starting with US products before expanding globally. He discussed various parameters such as material types, dimensions, standards from different organizations like ASTM or CSA for copper tubing.
 - ii. Schmidt mentioned the EN 10:57 standard for seamless round copper tubes used in Europe's sanitary and heating applications.
 - iii. Elmer suggested reaching out to the Copper Development Association for assistance with international standards related to copper.
 - iv. There was discussion about reaching out internationally for guidance on different countries' standards regarding materials like copper tubing and involving experts worldwide in populating data into shared templates via SharePoint site.

- v. MacNevin highlighted the need for compiling acronyms specific to pipe terminology used across North America along with industry terminology into a glossary as part of their efforts towards standardization.

9. Review of Action Items

- a. Revise committee meeting time – Mata – Completed
- b. Add Dann Holmes to Supply WG – Mata – Completed
- c. Resend work plan template with WG Chairs – Mata – Completed
- d. Revise Supply WG name to Water Service WG per Wise request – Mata – Completed
- e. Develop Working Group Work Plans – Working Group Chairs – In progress
- f. Utility Data Requests
 - i. City of Austin data request – Smith – No report
 - ii. Guardian Water – Richardson – Completed. Guardian unwilling to share data
- g. Call Dave Parney to remind him to send a copy of Cast Iron Presentation – Mata – Completed, left voicemail.

10. New Action Items

- a. Follow up with Steve White, Lift Tower Lab Presentation – Mata
- b. Send Poll for Potential In-Person Meeting at ICC ABM - Mata
- c. Develop Working Group Work Plans – Working Group Chairs
- d. Utility Data Requests - City of Austin data request – Smith

11. New Business

12. Old Business

13. Next Meeting – May 20, 2024, at 1pm-3:30pm Central (2pm-4:30pm Eastern)

14. Adjournment – Moved by Lansing, seconded by Wise. Motion passed. Meeting adjourned at 3:55pm Eastern.