



**ICC 825 Private Sewage Disposal Systems  
Standard Consensus Committee (IS-PSDS)**

**Meeting #17 Minutes**

**August 13, 2024**

The seventeenth meeting of the ICC 825 Private Sewage Disposal Systems Standard Consensus Committee (IS-PSDS) was held on August 13, 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](https://www.iccsafe.org/wp-content/uploads/ICC-Consensus-Procedures-ANSI-approved-8_2_21-BOD-apprvd-8_27_21.pdf)

1. Welcome – Chairman, Shaun May, convened the meeting and welcomed attendees at 3:11 CDT (4:11pm EDT)\* along with Staff Secretariat, Ramiro Mata. Mata reviewed the ICC Code of Ethics and the Anti- Trust Policy, both of which can be found in the ICC 825 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.  
*\*NOTE: Working group sessions were held from 1pm – 3pm CST (2pm – 4pm EST). Unless the committee elects otherwise, future meetings will follow this format.*
2. Roll Call and Committee Introductions – May called the meeting to order, and Mata took roll call of committee members –  indicates present.

Regulator		User		Manufacturer		SDO/Test Lab	
<input checked="" type="checkbox"/>	Shaun May	<input checked="" type="checkbox"/>	Esber Andiroglu PhD, PE	<input checked="" type="checkbox"/>	Bob Carpenter	<input checked="" type="checkbox"/>	Derek DeLand
<input type="checkbox"/>	Paula Kehoe	<input type="checkbox"/>	Tunzyaan Griffin	<input checked="" type="checkbox"/>	Ray Kennedy		
<input checked="" type="checkbox"/>	Rashid Istambouli	<input type="checkbox"/>	Albert (Bob) Rubin PhD	<input checked="" type="checkbox"/>	Charlotte Peele		
		<input type="checkbox"/>	Robert Schutz				

3. Interested Parties and Guests
  - a. Interested Parties – Dr. Bronwyn Humpries, Dr. Louise Weaver, Austin Perry, Mark Jensen, Matthew Lippincott
  - b. ICC Staff – None
4. Membership and Quorum – Mata indicated that with 7 out of 11 members in attendance, quorum was achieved.
5. Approval of July 9, 2024, Minutes – Moved by Carpenter, seconded by DeLand. Approved.
6. Approval of August 13, 2024, Agenda – Moved by Carpenter, seconded by DeLand. Approved.
7. Review Project Timeline – Overall project timeline dated June 25, 2024 was reviewed. DeLand commented that the September target date for completion of the first draft will likely be moved back because progress has been slower than expected.
8. University of Miami Research Update – Perry presented the environmental impacts report related to climate change.
  - a. Focused on cold weather impacts and wind hazards and emphasized the challenges posed by freezing conditions in Arctic communities, such as slowed biological treatment processes

and physical component impacts.

- b. Highlighted strategies for sustainable operation in cold climates, including insulation and maintenance requirements. Additionally, he discussed wind hazards' potential impact on exposed wastewater components.
- c. Explained that permafrost's presence in the northern hemisphere poses challenges for wastewater systems due to frozen ground affecting treatment processes and system operation. He detailed how freezing conditions can lead to discomfort at a user level, physical component damage, slowed biological treatment processes, increased fecal matter collection rates, and complications with effluent disposal.
- d. Addressed wind hazards' potential impact on exposed wastewater components while emphasizing that underground systems are largely immune from these effects. He provided insights into categorizing high wind threats for implementing mitigation strategies based on standardized approaches.
- e. Shared case studies from Alaska (highlighting varying insulation requirements), Greenland (describing decentralized waste disposal practices), and Sweden (emphasizing source separation techniques). These examples showcased effective solutions ranging from low-cost homeowner interventions to engineering designs addressing future impacts.
- f. Discussed the challenges of developing a wastewater system resilient to natural disasters such as tornadoes, emphasizing the need for cost-effective measures and considering low-populated areas with high wind threats.
- g. Highlighted mitigation strategies like windbreaks and vegetation barriers, citing Wyoming's case where environmental exposure was crucial for maintaining evaporation rates in constructed wetlands.
- h. Explained how fire hazards impact above-ground wastewater system components and suggested mitigating measures such as using fire-resistant materials and clearing vegetation.
- i. Emphasized that homeowners often prioritize protecting their homes over their wastewater systems, indicating that subsurface systems are less affected by wildfires.
- j. Discussed the indirect impacts of wildfires on energy sources, transmission lines, solar capacity, and urban interfaces. He mentioned codes and standards related to wildlife-urban interfaces in areas prone to wildfires due to urbanization.
- k. Detailed how drought affects soil compaction, water absorption rates, root intrusion into pipes due to dryness-induced plant behavior. He also highlighted changes in human behavior during droughts impacting water usage patterns within septic systems.
- l. Addressed strategies like rainwater harvesting prevalent in lower-income economies due to its simplicity. Additionally mentioned were gray water use, drought-tolerant landscaping techniques relevant under various weather conditions including cold weather or hot weather conditions.
- m. Discussed the challenges faced by wastewater treatment systems, including drought conditions leading to waste and wastewater management issues, community awareness and preparedness for droughts, sea level rise impacting coastal communities, population growth exacerbating environmental challenges, and the susceptibility of septic systems to flooding and saltwater intrusion.

- n. Highlighted the impacts of these challenges such as physical damage to infrastructure, sewage overflow into water bodies causing beach closures or environmental hazards in tourist-heavy island nations. Strategies mentioned included elevating critical components above ground level, strategic site selection and grading for septic systems in vulnerable areas like small island developing states heavily reliant on tourism.
  - o. Emphasized that sea level rise has forced many communities off septic systems into alternative options due to coastal inundation. He cited Miami as a case study where transitioning away from septic posed financial burdens on certain demographics. Additionally, he mentioned Bangkok's struggle with coastal erosion affecting wastewater disposal sites which could deter tourists from visiting these areas.
  - p. Discussed various environmental challenges faced by wastewater treatment systems due to projected climate impacts such as diverse flooding events (riverine flooding), coastal erosion impacting wastewater deposits in island nations heavily reliant on tourism revenue.
  - q. Stressed that each challenge requires a tailored strategy based on specific regional needs similar to Alaska where different approaches are necessary within one state alone.
  - r. Key takeaways included adaptation strategies involving community involvement, regulatory compliance measures along with innovative solutions aimed at safeguarding wastewater treatment services against potential disruptions caused by environmental factors.
9. Working Group Updates
- a. Collection – Septic and Holding Tanks: Kennedy reported that he has a draft ready for the working group to review. Will work with Mata to schedule a working group meeting.
  - b. Pit Latrine: DeLand reported that little progress was made in July due to work and personal commitments. Working group last met on July 9, 2024. Working draft is uploaded to a Google drive to facilitate access for working group members. Plans to send Doodle poll to schedule WG meeting. Discussed difficulty finding requirements for concrete slab construction related to pit latrine. Kennedy will share information on concrete slabs.
  - c. Conventional Soil Absorption: Peele reported that the working group met on August 13, 2024. Inquired about military standards for soil absorption systems to provide another perspective on requirements. Will send an email to decide on next WG meeting.
  - d. Pressure Distribution Systems: Kennedy reported that draft still in development, working with a colleague to get it done by August 16th. Plans to schedule a working group meeting before the next committee meeting. May suggested for Kennedy to work with Mata to schedule a working group meeting.
  - e. Mound Systems: May reported that IPSDC has 20 pages dedicated to mound systems. Plans to use the state of Florida's mound requirements because it is much more streamlined.
  - f. Other OWTS: The working group last met on August 13, 2024. Humphries reported that they have identified six other types of OWTS and are looking at national standards that can be referenced. She added that 3 of the OWTS types may be referenced in other sections of the full standard.
10. Previous Action Items
- a. Assist Humphries in accessing the team folders – Mata - COMPLETED
  - b. Refine the process for conducting working group meetings before the next monthly meeting - DeLand, May, and Mata. Time slots will be on a first availability basis. COMPLETED

- c. Create a document outlining the scope, timeline, and status of the working groups - DeLand, May, and Mata. Draft sent to May and DeLand. COMPLETED
  - d. Explore involving outside experts in the relevant working groups – Working group chairs IN PROCESS
  - e. Schedule working group meetings between the monthly Technical Committee (TC) meetings - Working group chairs IN PROCESS
    - a. Share the updated paper on climbing the sanitation ladder with the committee members. – Perry COMPLETED
    - b. Provide the environmental report to the committee members before the next TC meeting – Perry COMPLETED
11. New Action Items
- a. Assist Kennedy in scheduling working group meetings for Septic/Holding Tanks and for Pressure Distribution systems. (Mata)
  - b. Complete draft for Septic/Holding Tank section. (Kennedy)
  - c. Provide structural design requirements for concrete slabs with open cavities. (Kennedy)
  - d. Schedule working group meetings between the monthly Technical Committee (TC) meetings (WG chairs)
  - e. Look into military standards for conventional septic systems. (Peele)
  - f. Explore involving outside experts in the relevant working groups (WG chairs)
12. New Business
13. Old Business
14. Next Meeting – September 10, 2024
- a. Working Group: 1pm – 2pm Central (2pm – 3pm Eastern)
  - b. Working Group: 2pm – 3pm Central (3pm – 4pm Eastern)
  - c. Full Committee: 3pm – 5pm Central (4pm – 6pm Eastern)
15. Adjourned at 4:13pm Central (5:13pm Eastern)