

City of Portland
Bureau of Development Services
Alternative Technology Advisory Committee
Meeting Notes
March 7, 2019

Attendees: Joshua Klyber, Jim Bechtel, Bob Sweeney, David Posada, Nancy Thorington, Terry Whitehill, Tad Everhart, Ole Errson, Dave Tebeau, Donna Ruark (notes)

1. Welcome/Introductions

Joshua welcomed everyone. It was decided that the meeting would proceed, even though there wasn't a quorum. (David Posada came in later, so then there was a quorum.)

2. Continuing discussion of Application 12-01, Composting Toilet and Urine Diversion System –specifically, urine collection in glass or plastic bottles

Terry stated that while he and Nancy were writing up the recommendation for the Composting Toilet and Urine Diversion System application, they had a question regarding the urine collection. Terry said the issue is the urine collection container- details of urine collection are not mentioned in the WeStand code. He and Nancy didn't want the details of the urine collection container to be part of the recommendation.

Ole thought that the bottles were just a collection device and saw no reason that bottles would violate the WeStand code.

Joshua said that WeStand seems to focus on long-term containment and storage. He recommended that the group state there will be no bulk storage within each unit. Terry agreed; he doesn't see any issues with doing it, but maybe that specific detail shouldn't be mentioned in the application and recommendation.

It was decided that Nancy and Terry will amend the recommendation and email it to members for approval.

Once the recommendation is approved, then an appeal would be submitted with site-specific information (but leaving out the urine collection container information).

3. Discussion of Application 13-01, Shower Waste Water Heat Recovery System

Tad Everhart led the discussion regarding a Shower Waste Water Heat Recovery System. He said there is a tremendous amount of heat in shower water –

approximately 100 degrees. Most of it just goes down the drain and is wasted. Some Canadian and European companies re-use that water. The idea is that cold water comes up from ground and mixes with the hot water, and far less hot water is needed. It saves on hot water consumption.

Tad explained that the HRS (heat recovery system) is used with a tank water heater. The idea would be to pre-warm the cold water before it goes into the mixing valve. There was discussion regarding the mixing valve; Tad was under the impression that the device wouldn't work with a conventional standard mixing valve, that a special, European valve would be needed. Jim Bechtel said that the device should work with most standard mixing valves.

Tad stated that even if device promises 70% of use, that it's a step in the right direction. The company has done a good job of making something that's safe for general household use. Tad said that basically the device will run warm water to the shower, cold water to the heat pump. Tad doesn't know of any issues running warm water into the tank. Also, this device can service multiple showers.

Bob asked about the location and also whether the manufacturer discussed calcium (or other) build-up. Tad responded that it should be installed as close to vertical as possible, in the wall or floor below the shower, with an access panel for maintenance. The manufacturers didn't mention build-up as a concern. There was discussion whether calcium, condensation, or hair would build up in the device. It was decided that as long as there was an access panel and regular maintenance it should be ok.

There was discussion regarding the using a cyclonic valve with an AAV. (A cyclonic valve means water travels through a valve in a circular motion; AAV means air admittance valve.)

There was concern about the re-heated water and drinking water, because of the danger of cross-contamination. Bob stated there is not supposed to be an interface between heating/process and potable water. Joshua agreed that the re-heated water is not intended to be drunk.

Tad recommended that it would be best not to use lye-based cleaning products.

Bob said that he thought a tankless water heater could be considered, so that only cold water needs to be provided to the restroom.

David commented on temperature controls. It seems the more square the tubes are, or the number of tubes wrapped, the better the heat transfer is.

The group had a list of recommendations:

1. Use system B of the 3 choices – be clear that's the system being used in the appeal. Make the ATAC application general, to include all 3 systems
2. Include a maintenance schedule or visual inspection schedule (Dave Tebeau recommended every 3 months)

3. Provide a full height access panel, so it's easy to maintain or replace if necessary
4. Jim Bechtel recommended: if using a cyclonic fitting, the AAV valve should be at least 4 inches above the trap.

The group decided it doesn't need to meet again. Tad will make the changes to the application, and the group can approve it via email.

The meeting was adjourned.