

California Building Standards Commission,
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833
Attention: Jim McGowan, Executive Director
CBSC@dgs.ca.gov.

October 8, 2012

Dear Jim McGowan,

Great work on CPC's Chapter 16! I just have a few comments, listed below.

Sincerely,,

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510-846-29101601.2 System Design. Alternate water source systems complying with this chapter shall be designed by a person who demonstrates competency to design the alternate water source system as required by the Enforcing Agency. The Enforcing Agency may also require plans and specifications to be prepared by a licensed design professional for Complex Systems. Components, piping, and fittings used in any alternate water source system shall be listed.

Wondering about this one!

I am wondering what exactly “licensed design professional” for alternate water systems MEANS. Does this mean graduates of Greywater Action's 5-day design/installation course? Or does this mean only a CSLB licensed contractor such as plumber, or landscape contractor?

Hmmm, seems to me that the better language would replace

The Enforcing Agency may also require plans and specifications to be prepared by a licensed design professional for Complex Systems.

With the alternate wording:

The Enforcing Agency may also require plans and specifications for Complex Systems to be prepared by a licensed design professional or certified graduate of an alternate water systems certification course.

1601.4 Component Identification. System components shall be properly identified as to the manufacturer.

I have been a licensed general contractor for 14 years and I have never seen a requirement in the building code like this before. Very odd, who's idea was THIS? Is this a secret “poison pill” for alternative water technologies? The manufacturer of the ABS pipe I use in my greywater systems needs to be properly identified? Who the hell cares who the manufacturer is? As long as it meets ANSI standards or whatever, it does not matter one whit who the manufacturer of my ABS fitting is.

But if some knucklehead building inspector who things greywater is nuts and wants to sink my project can just pull out 1601.4 and “properly identify the manufacturer” my project to death.

What if I make my own bell siphons out of PVC parts for my alternate water system? I am the manufacturer, technically. So how do I properly identify myself as the manufacturer?

And what exactly does “properly identify” mean?

I don't like it. Vague, problematic, why even put this into the Code???

TABLE 1601.5 MINIMUM ALTERNATE WATER SOURCE TESTING,
INSPECTION, AND MAINTENANCE FREQUENCY

Thank you for removing this, this whole thing was pretty stupid.

1602.2.1 Discharge.

“... Gray water shall not be used to irrigate root crops or food crops intended for human consumption that come in contact with soil. ”

ALL food crops intended for human consumption come in contact with soil – through their roots.

Greywater therefore may not irrigate ANY food crops given the literal meaning of the sentence above.

It might better be worded:

Gray water shall not be used to irrigate root crops intended for human consumption or other food crops in which the food part of the plant comes in contact with soil.

1602.2.3 Diversion. The point of diversion of gray water to the sanitary drainage system shall occur downstream of fixture traps and vent connections through an approved diverter valve. The diverter valve shall be installed in a readily accessible location and clearly indicate the direction of flow.

This is all kinds of wrong. This is mandating all graywater systems must have fixture traps and vent connections and an approved diverter valve. Plus it says the valve itself must clearly indicate the direction of flow!

1. Lets look at the typical L2L system (that is unpermitted). The greywater from the washing-machine is diverted one way to the air gap and the home's DWV system, and the other way to the anti-siphon and outdoor dispersion areas. The point of diversion is BEFORE or UPSTREAM of the home's traps and vents, not DOWNstream. The sentence above is just plain wrong. If we keep the wording above in the new Code, it will mandate that all diversion will HAVE TO BE downstream of traps and vents and mandate that only permitted greywater systems be installed by plumbers, and throw L2L out the door. The sentence is just plain wrong. It says we have to put our washing-machine hose into the home's existing air-gap, and then open up the plumbing in the floor downstream of the vent and trap and place our diverter there. Wrong.
2. It also says that all greywater systems must have an approved diverter valve. What is this nonsense? The old greywater code said that the user should be able to easily be able to switch from the DWV sewer line to the greywater line easily, but never mandated a VALVE. At our house I have an air gap in the wall, and two

stand-pipes attached to the wall right nearby. I move my greywater from one outdoor dispersion area to the next (or to the sewer line) by simply moving the washing-machine hose from one to the other. Why are you telling me I must have an approved valve for my greywater system? As the old Code said, you need to simply be able to switch from one to the other and the choice must be clearly labeled, but this new requirement that ALL greywater systems MUST have a diverter valve is onerous. How about future designs for alternative water systems, why must THEY ALSO be forced to have a valve?

3. Diverter valve DOES NOT have to be in a readily accessible location. I can put a JVA (jandy valve actuator) on my Jandy diverter valve (which is under the bathroom floor - not very accessible) and then mount the switch for the JVA in a nice accessible location. This is what we DO. Mandating that the valve HAS to be readily accessible like this is just extraneous. Who wrote this proposed section 1602.2.3? You COULD try to salvage this by changing the wording such that the valve - or a means to switch the valve - needs to accessible.
4. The requirement that the valve must clearly indicate the direction of flow is bizarro. Often the handles on three port valves do NOT intuitively indicate the direction of flow. The sentence could be salvaged, "The diverter valve or means to actuate the valve shall be installed in a readily accessible location and be clearly labeled so the user may chose the appropriate direction of flow."
5. but why bother to salvage 1602.2.3? these few sentences are a virtual train-wreck, are completely un-needed and appear to be an attempt by someone with an agenda to try to force their own particular version of greywater on EVERYONE. I say dump 1602.2.3 entirely. This is like the poison pill above, someone trying to derail alternative water. How did this section get in here?

1602.3 Connections to Potable and Reclaimed (Recycled) Water Systems.

Yay, you guys got it right! Great job!

1602.8.1 Single Family Dwellings and Multi-Family Dwellings. Residential Occupancies.

Showers, bathtubs and lavatories 25 gallons (95 L) per day/occupant

Laundry 15 gallons (57 L) per day/occupant

really? Come on, I have a wife and three daughters, three dogs and two cats. We use like ¼ of what you list here. How realistic is this anyway?

1602.8.3 Daily Discharge. Gray water systems using tanks shall be designed to minimize the amount of time gray water is held in the tank and shall be sized to distribute the total amount of estimated gray water on a daily basis.

Exception: Approved on-site treated nonpotable gray water systems.

I don't think this is needed at all, and has lots of problems with it. I say ditch 1602.8.3 entirely.

a) the tank must minimize the amount of time greywater is held in the tank and also sized to distribute the total amount on daily basis? Sounds contradictory to me. Does this mean that the tank must empty daily? If so, why not just say this?

b) so all greywater systems that use tanks **MUST** use the tank as a surge tank and for no other reason? I recently built a greywater bog in a tank and the time it takes

the greywater to pass through the system may be more than a day. Does this mean that it does not comply with the new Code? Using bioengineering to treat my greywater means a slow trip through my bog, but this new addition to the Code insists that I minimize the time the greywater spends in the tank. I guess my new system will be an exception. But insisting that all tanks be surge tanks is a big reach, and no good reason for this. I say ditch the whole section.

c) the future will see all sorts of innovations. This section on “daily discharge” is inappropriate and should be left out of today's Code.

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