

STATE OF CALIFORNIA  
STATE AND CONSUMER SERVICES AGENCY  
CALIFORNIA BUILDING STANDARDS COMMISSION  
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CALIFORNIA BUILDING  
STANDARDS COMMISSION

Office Use Item No. \_\_\_\_\_

**PARTICIPATION COMMENTS FOR THE NOTICE DATED AUGUST 28, 2009**  
**Written comments are to be sent to the above address.**

**WRITTEN COMMENT DEADLINE: OCTOBER 12, 2009**

Date: October 9, 2009

From:

Mark McPherson, Chief, Land and Water Quality Division  
Name (Print or type)

  
(Signature)

County of San Diego Department of Environmental Health

Agency, jurisdiction, chapter, company, association, individual, etc.

5201 Ruffin Road, Suite C  
Street

San Diego  
City

CA  
State

92123  
Zip

I/We (do)(do not) agree with:

The Agency proposed modifications As Submitted on Section No. California Plumbing Code Part 5, Title 24, Chapter 16A

and request that this section or reference provision be recommended:

Approved  Disapproved  Held for Further Study  Approved as Amended

**Suggested Revisions to the Text of the Regulations:**

See Attached

**Reason:** [The reason should be concise if the request is for "Disapproval," "Further Study," or "Approve As Amend" and identify at least one of the 9-point criteria (following) of Health and Safety Code §18930.]

See Attached

## HEALTH & SAFETY CODE SECTION 18930

### SECTION 18930. APPROVAL OR ADOPTION OF BUILDING STANDARDS; ANALYSIS AND CRITERIA; REVIEW CONSIDERATIONS; FACTUAL DETERMINATIONS

- (a) Any building standard adopted or proposed by state agencies shall be submitted to, and approved or adopted by, the California Building Standards Commission prior to codification. Prior to submission to the commission, building standards shall be adopted in compliance with the procedures specified in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code. Building standards adopted by state agencies and submitted to the commission for approval shall be accompanied by an analysis written by the adopting agency or state agency that proposes the building standards which shall, to the satisfaction of the commission, justify the approval thereof in terms of the following criteria:
- (1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.
  - (2) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.
  - (3) The public interest requires the adoption of the building standards.
  - (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.
  - (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.
  - (6) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.
  - (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.
    - (A) If a national specification, published standard, or model code does not adequately address the goals of the state agency, a statement defining the inadequacy shall accompany the proposed building standard when submitted to the commission.
    - (B) If there is no national specification, published standard, or model code that is relevant to the proposed building standard, the state agency shall prepare a statement informing the commission and submit that statement with the proposed building standard.
  - (8) The format of the proposed building standards is consistent with that adopted by the commission.
  - (9) The proposed building standard, if it promotes fire and panic safety as determined by the State Fire Marshal, has the written approval of the State Fire Marshal.

## **Attachment**

### **Written Comments on Proposed Revisions to the California Plumbing Code, Part 5, Title 24, Chapter 16A – Nonpotable Water Reuse Systems (Graywater Systems)**

The County of San Diego Department of Environmental Health (DEH) appreciates the opportunity to comment on the proposed revisions to Chapter 16A of the California Plumbing Code dated August 26, 2009. DEH remains supportive of the concept of the outdoor use of graywater but cannot support the proposed building standards as they are not written to be protective of public health and the environment. The following contains our comments and recommendations.

#### 1602A.0 Definition of a Single Fixture System

A single fixture system is defined as a graywater system collecting graywater from one plumbing fixture or a single drain which collects graywater from more than one fixture. This would allow for a graywater system serving a dwelling that is plumbed so that all fixtures generating graywater drain to a single drain line separate from the toilet and kitchen waste drain lines to be considered a single permit system and therefore exempt from a permit. Per discussions with the State Department of Housing and Community Development (HCD), it was not their intention to waive permits on graywater systems that utilize all the graywater sources in a dwelling.

This definition is unnecessarily ambiguous and vague and should be amended so that a single fixture system is defined as a graywater system that collects graywater from a single fixture only.

#### Section 1603A.0 Permit

This section waives the requirements for a construction permit for clothes washer and/or single fixture graywater systems. To begin with, this section needs clarification if the permit waiver is to remain. The regulations should be changed to specifically state that a property can have only one clothes washer system and one single fixture system and those systems cannot be combined into a single system. Secondly, the waiving of the permit will eliminate any mechanism to ensure compliance with these regulations which are intended to protect public health and the environment. We do not object to simplifying the process for these systems but the permit requirement should remain to allow for the necessary oversight. In addition, the San Diego Regional Water Quality Control Board (RWQCB) adopted conditional waiver of waste discharge requirements specific for graywater systems in January of 2008 which requires all graywater systems to be permitted by the authorized local agency.

This section of the proposed building standards is unnecessarily ambiguous and vague as well as in conflict with the regulations adopted by the RWQCB and should be amended to eliminate the waiver of the construction permit.

#### Section 1603A.1.1.2 System Requirements

This section specifies that a method to divert the flow of graywater to the graywater system or the building sewer must be provided and must be readily accessible. For single fixture systems, a diverter valve must be installed in the drain line which would be part of the graywater system and therefore exempt from a construction permit. The problem here is that the diverter valve in most cases would be located under the dwelling unless extensive modifications to the plumbing were completed and therefore not readily accessible. Per discussions with HCD, the intention was where a single cut into a drain line could be made to allow for the simple installation of a diverter valve, it would be included in the construction permit waiver but significant plumbing modifications should be done under permit and inspection.

This section of the proposed building standards is in conflict with various State and local regulations which require permits for plumbing modifications and should be amended to eliminate the waiver of

the construction permit or to specifically require permits for modifications to the plumbing system.

#### Section 1603A.1.1.3 System Requirements

This section prohibits a connection of a potable water supply to the graywater system for systems exempt from a construction permit. Water districts and agencies in San Diego County have expressed a concern to DEH regarding the potential for cross connections on sites with graywater systems and therefore the need for backflow protection at the potable water meter.

This section of the proposed building standards is in conflict with State and local regulations regarding backflow protection where auxiliary water supplies are located on properties supplied by public water systems and should be amended to include a provision for all property owners proposing to install a graywater system to notify their local water purveyor for prior to installation of the system.

#### Section 1603A.1.2 Simple Systems

This section specifies that design of simple systems shall meet generally accepted graywater system design criteria. The intent of this section is confusing as there are no generally accepted graywater design criteria other than the design criteria found in the Uniform Plumbing Code or California Plumbing Code.

This section of the proposed building standards is unnecessarily ambiguous and vague and should be amended to state that the design of simple systems shall meet the design criteria found in the chapter.

#### Section 1603A.1.3 Complex Systems

This section requires that complex systems must be designed by a person who can demonstrate competence to the satisfaction of the Enforcing Agency.

This section of the proposed building standards is unnecessarily ambiguous and vague and should be amended to provide specific guidance for regulators to be able to identify the criteria necessary to demonstrate competence such as licenses, registration or certifications.

#### Section 1604A.1 Groundwater Depth

This section reduces the required separation to groundwater from 5 feet to 3 feet and allows for the separation to groundwater to be demonstrated with a test hole no more than 3 foot deeper than the lowest depth of the dispersal system. A lack of groundwater in the hole will be considered acceptable for determining the groundwater separation. There is no allowance for requiring seasonal fluctuations to be addressed unless there is documentation of seasonal fluctuations in the area. It is our experience based on discussions with the public that the majority of graywater systems will go in residential areas served by public sewer where there will be little if any documentation regarding seasonal fluctuations of groundwater. Also, this section is in conflict with the RWQCB's conditional waiver of waste discharge requirements specific for graywater systems. The waiver requires that the graywater discharge must be at least 5 feet above highest known historical or anticipated groundwater level.

This section of the proposed building standards is in conflict with the regulation adopted by the RWQCB and should be amended to eliminate all specifications for determining the groundwater depth and to only include the requirement to meet the minimum separation to the seasonal high groundwater level as specified by the Enforcing Agency.

#### Table 16 A-1 Location of Graywater System

Footnote #1 indicates that building structures do not include porches or steps, whether covered or

uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures. Is the intention to eliminate the setback to any of these structures? Footnote #2 applies setbacks to structures with foundations but some of the structures listed in footnote #1 will have a foundation.

This section of the proposed building standards is unnecessarily ambiguous and vague and should be amended to clarify the intent.

Table 16 A-2 and 16 A-3 Design Criteria of Six Typical Soils

The design criterion is based solely on soil type and does not give guidance to those agencies that use percolation testing to determine soil permeability.

This section of the proposed building standard is unnecessarily ambiguous and vague and should be amended to include a percolation rate or range with each soil type to allow for consistency of design throughout the State.

Should you have any questions or need clarification of our comments, please contact Tom Lambert, Program Coordinator at (858) 495-5752 or by email at [tom.lambert@sdcounty.ca.gov](mailto:tom.lambert@sdcounty.ca.gov).