

DOCKETED	
Docket Number:	21-AAER-01
Project Title:	Appliance Efficiency Regulations for Dipper Wells
TN #:	259263
Document Title:	Request for Information (RFI) on Appliance Efficiency Regulations for Dipper Wells
Description:	Written comments are due by November 8, 2024. The purpose of this Request for Information (RFI) is to share the results of workgroup activities, including preliminary staff and/or workgroup recommendations for continuous dipper wells, with interested stakeholders and members of the public while also seeking feedback.
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CALIFORNIA ENERGY COMMISSION

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CEC-057 (Revised 1/21)



Request for Information (RFI)

Appliance Efficiency Regulations for Dipper Wells

Docket No. 21-AAER-01

Written Comments Due November 8, 2024 5:00 PM

Purpose of Request

The California Energy Commission (CEC) seeks information from interested members of the public as it considers establishing efficiency standards, test procedures, marking requirements, certification requirements, and any other appropriate regulations for dipper wells. The purpose of this Request for Information (RFI) is to share the results of workgroup activities, including preliminary staff and/or workgroup recommendations for continuous dipper wells, with interested stakeholders and members of the public while also seeking feedback.

Background

The CEC continues to work toward a clean and equitable energy future for California through implementation of innovative energy policies, including establishing water efficiency standards for indoor and outdoor appliances. Dipper wells are typically continuous-flow sinks, which may use either hot or cold water, used to rinse serving utensils in the food service industry such as ice cream stores, coffee shops, juice spots, and full-service restaurants.

On October 13, 2021, the CEC issued an order instituting rulemaking (OIR) to formally begin considering efficiency standards, test procedures, marking requirements, and other efficiency measures for dipper wells. Any measures resulting from the OIR will be incorporated into California Code of Regulations, Title 20, sections 1601–1609, the Appliance Efficiency Regulations.

On December 6, 2021, the CEC published an RFI to gather information on dipper wells and an Invitation to Participate (ITP) to initiate a workgroup on dipper wells.

On April 20, 2022, CEC staff held a kickoff meeting to initiate workgroup activities. Subsequently, the workgroup performed worksheet activities focused on developing terms and definitions, determining an appropriate test procedure to measure flow rate,

discussing food and safety considerations, and other topics. The last workgroup activity was a meeting held on May 29, 2024.

Request for Feedback on Discussion Documents

1. Staff seeks feedback on the terms and definitions developed by the workgroup found in *Attachment A*.

Attachment A to this notice is a draft of terms and definitions developed by the workgroup on dipper wells and includes changes proposed by workgroup members in the last worksheet provided to the workgroup.

2. Staff seeks feedback on the draft test method for continuous dipper wells for measuring maximum flow rate found in *Attachment B*.

Attachment B to this notice is a draft test method for continuous dipper wells based on the industry standard ASME A112.18.1 [Plumbing Supply Fittings], section 5.4 [Flow Rate], version 2018. The purpose of the test method is to measure the maximum flow rate of continuous dipper wells. This draft includes changes proposed by workgroup members in the last worksheet provided to the workgroup.

3. Staff seeks feedback on the information provided by the food and safety experts and the outreach effort presented in *Attachment C*.
 - a. Do you agree with the preliminary determination that the food and safety code does not conflict with setting an efficiency standard for the maximum flow rate for continuous dipper wells? If no, please elaborate and explain why.
 - b. Are there additional food and safety experts that you recommend the CEC to consult with? If so, who and why?

Attachment C to this notice includes responses from Environmental Health Specialists from certain county departments responsible for enforcing the California Food & Safety Code. The counties include Sacramento County, City of Berkeley, Butte County, and El Dorado County. This outreach effort aimed to resolve questions and concerns on safety and sanitation raised by stakeholders. Responses indicate the food and safety code does not conflict with development of a maximum flow rate for continuous dipper wells or with the installation of alternative (e.g., non-continuous) dipper wells. Experts in this field prioritize cleanliness of the device and surrounding surfaces as specified in the food and safety code.

Request for Feedback on Preliminary Staff Determinations and Other Considerations

4. Staff seeks feedback on the proposals to consider appliance efficiency regulations only for continuous dipper wells.

At this time, staff proposes to consider appliance efficiency regulations only for continuous dipper wells, and not for intermittent or heated dipper wells. Intermittent and heated dipper wells are by design generally more water efficient than continuous dipper wells, and our focus is hence on continuous dipper wells. Staff is not currently considering requiring dipper wells to be metered or sensor activated as continuous dipper wells are essential for certain food service establishments and a transition to non-continuous dipper wells could be disruptive.

5. Staff seeks feedback on a maximum flow rate of 0.2 gallon per minute (gpm) as an efficiency standard for continuous dipper wells.
 - a. Are there any commercial food service applications for which a flow rate of 0.2 gpm for the continuous dipper well is insufficient and for which there are no practical alternatives? If so, what are these commercial food service applications? Please provide as much information and supporting evidence as available.

Staff is considering setting a maximum flow rate of 0.2 gallon per minute (gpm) as an efficiency standard for continuous dipper wells. This maximum flow rate aligns with the maximum flow rate found in 2024 International Association of Plumbing & Mechanical Officials (IAPMO) Uniform Plumbing Code – Appendix L, section 404.3 Dipper Well Faucets and soon to be incorporated into the 2025 California Plumbing Code. Appendix L of the 2022 California Plumbing Code was adopted as mandatory by several local jurisdictions in California; staff expects many of these jurisdictions to also adopt Appendix L as mandatory for the 2025 California Plumbing Code. Staff has not identified information indicating a dipper well flowrate of 0.2 gpm is insufficient for a given dipper well application.

Staff also notes that there are practical alternatives to continuous dipper wells, including intermittent and heated dipper wells and alternative technologies such as undercounter dishwashers. In addition, existing mandatory and voluntary maximum flow rate standards ranging from 0.2 gpm to 0.3 gpm have been in place as early as 2012, suggesting feasibility for various food applications and compliance with the food and safety code.

6. Staff seeks feedback on the preliminary determination to not include a test method to measure food clearance as a regulatory requirement.

The workgroup activities included discussions on developing one or more test methods for measuring flow rate and for measuring food clearance. Staff does not intend to

develop a food clearance test as a regulatory requirement, as it is likely beyond what is necessary for verifying compliance with a flow rate standard. Therefore, staff is focusing on developing a test method for the specific purpose of measuring flow rate for continuous dipper wells.

Additionally, staff seeks information and feedback from interested stakeholders on the following:

7. What types of food establishments are dipper wells regularly found in and for what food application(s)? Names of food establishments known to utilize dipper wells are helpful to ensure staff are neither over- nor under-counting the number of restaurants relying on these products.
 - a. For each type of food establishment, how many dipper wells are typically found per food establishment?
8. Staff seeks additional detail regarding the dipper well product market.
 - a. What fraction (or percentage) of total sales of dipper wells in California are continuous dipper wells?
 - b. What is the breakdown of sales of continuous dipper wells by volume size of the dipper well sink?

Availability of Document

The CEC is also sharing a draft of the Dipper Well Test Method developed by the California Investor-Owned Utilities (IOUs) in response to workgroup activities with other interested stakeholders and members of the public in the docket for Dipper Wells. The scope of this test method covers continuous dipper wells, intermittent dipper wells, and heated dipper wells, and is used to determine water and energy consumption. Staff believes this information could be useful to interested stakeholders or for future activities in this proceeding and is hence making this information public. Staff is not seeking further feedback on this test method since the current focus is limited to measuring the flow rate of continuous dipper wells. This test method is available separately from this RFI in the [Appliance Efficiency Regulations for Dipper Wells Docket 21-AAER-01](https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AAER-01), <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AAER-01>.

Submitting Comments to the CEC Docket

Written comments must be submitted to the Docket Unit by November 8, 2024. Written comments, attachments, and associated contact information (for example, address, telephone number, email address) will become part of the public record of this proceeding with access available via any internet search engine. One or more public hearings and public input periods will follow on the proposed draft text of regulations.

The CEC encourages use of its electronic commenting system. Visit the [e-commenting page](https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=21-AAER-01), <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=21-AAER-01>, which links to the comment page for this docket. Enter your contact information and a comment title describing the subject of your comment(s). Comments

may be included in the "Comment Text" box or attached in a format consistent with California Code of Regulations, Title 20, section 1208.1. The maximum file size is 10 MB.

Written comments may also be submitted by email. Include the docket number 21-AAER-01 and "Dipper Wells RFI" in the subject line and send to docket@energy.ca.gov.

If preferred, a paper copy may be submitted to:

California Energy Commission
Docket Unit
Re: Docket No. 21-AAER-01
715 P Street
Sacramento, CA 95814

If interested parties wish to maintain the confidentiality of specific data or information, they should submit an application for confidentiality and the confidential documents directly to the Docket Unit through the e-filing system. For information on applying for confidentiality, interested parties should contact the Docket Unit in the CEC's Chief Counsel's Office before submitting a response to this RFI. Otherwise, all responses received will become publicly available. Visit the [Docket Unit page](https://www.energy.ca.gov/about/divisions-and-offices/chief-counsels-office/docket-unit), <https://www.energy.ca.gov/about/divisions-and-offices/chief-counsels-office/docket-unit>, which links the application for confidentiality.

Questions regarding submitting comments to the docket, including inquiries regarding confidentiality, should be referred to the Docket Unit at docket@energy.ca.gov or (916) 654-5076.

Public Advisor and Other Commission Contacts

The CEC's Public Advisor assists the public with participating in CEC proceedings. To request interpreting services, reasonable modification or accommodations, and other modifications, contact the Public Advisor at publicadvisor@energy.ca.gov or by phone at (916) 957-7910. Requests should be made as soon as possible but at least five days in advance. The CEC will work diligently to meet all requests based on availability.

Direct questions on the subject matter of this RFI to Jessica Lopez at jessica.lopez@energy.ca.gov, or David Johnson at david.johnson@energy.ca.gov. The CEC's Appliance Efficiency Branch can also be contacted by phone at (916) 651-7100.

Media

Direct media inquiries to the Media and Public Communications Office at mediaoffice@energy.ca.gov or call (916) 654-4989.

Subscribing to CEC's News, Programs, and Events

Interested parties who would like to follow or participate in this proceeding should subscribe to receive updates and information on news, programs, and events from the CEC through its [subscriptions webpage](https://public.govdelivery.com/accounts/CNRA/signup/31895), <https://public.govdelivery.com/accounts/CNRA/signup/31895>. Be sure to include "Appliance Efficiency Standards" in your subscription topics. By subscribing to this service, interested parties are consenting to receive information, notices, and other communications, including information associated with CEC's efficiency-related rulemaking proceedings, by electronic mail.

Availability of Rulemaking Proceeding Documents

All records for the process will be accessible in the [Appliance Efficiency Regulations for Dipper Wells docket](https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AAER-01) 21-AAER-01, <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AAER-01>. When new information is posted, an email will be sent to those on the Appliances list server. To receive these notices, subscribe at the [Appliance Efficiency Proceedings webpage](https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20/appliance-efficiency-proceedings), <https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20/appliance-efficiency-proceedings>.

Attachment A

Terms and Definitions

Dipper well means a container or receptacle used for temporary storage of utensils between use that is equipped with either a temperature-controlled reservoir or a faucet that provides water flow to a receiving well with drainage.

Continuous dipper well means a dipper well with a faucet designed to provide continuous potable water flow to a receptacle with drainage.

Non-continuous dipper well means a dipper well that does not rely on continuous flow of potable water, including intermittent dipper wells and heated dipper wells.

Intermittent dipper well means a non-continuous dipper well where potable water flow is initiated and terminated mechanically or automatically.

Heated dipper well means a non-continuous dipper well that is equipped with a temperature-controlled reservoir that maintains a water temperature to inhibit bacterial growth.

Attachment B

Draft Test Method for Continuous Dipper Wells

This test method applies to continuous dipper wells.

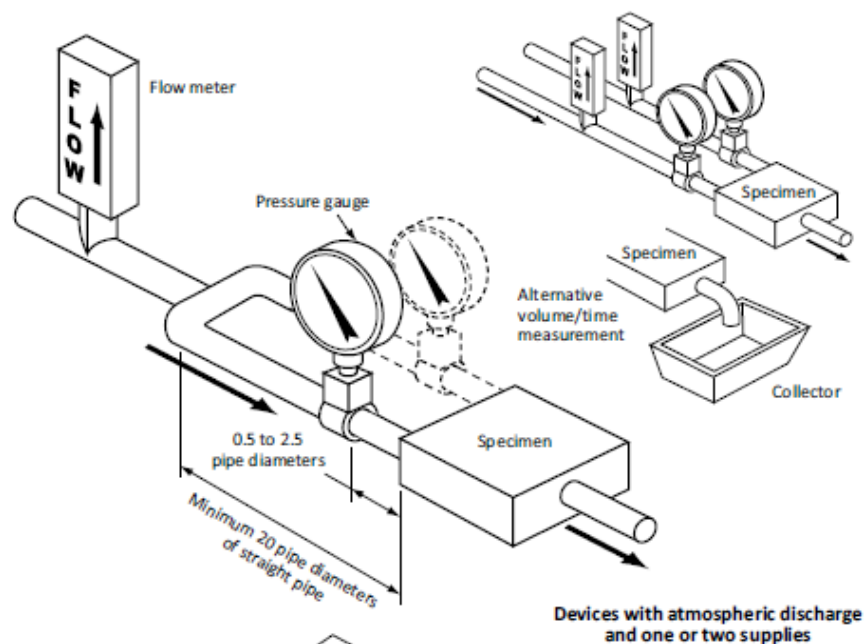
1.1. Specimen

The specimen shall

- a) be thoroughly flushed before the flow rate is measured;
- b) be connected to a smooth-interior pipe or tubing with a length equal to at least 20 times the inside diameter of the inlet(s) of the specimen;
- c) have a pipe or tubing of the length specified in Item b) connected to the outlet of the specimen if the specimen does not discharge to the atmosphere;
- d) be connected to a pipe or tubing of the same nominal size as the specimen connections.

The test set-up shall be as shown in **Figure 1**.

Figure 1: Discharge Capacity Test Schematics



1.2. Flow Rate

Other flow rate test conditions shall be as follows:

- a) the upstream pressure tap(s) shall be located as shown in **Figure 1**;
- b) pressure tap size and configuration shall comply with ASME PTC 19.2 or ANSI/ISA-75.02;
- c) if a fluid meter is used to measure flow rate, the installation shall be as specified in ASME PTC 19.5; and
- d) if the time/volume method is used, the container shall be of sufficient size to hold the collected water for at least 1 min.

1.3. Procedure

Fittings shall be tested at the maximum flow setting with the water valve fully open.

The flow rate test shall be conducted with water between 50 and 70°F in accordance with the intended end use of the fitting and at 410 ± 7 kPa (60 ± 1 psi) at the inlet when water is flowing.

Attachment C

Responses from Experts in Food and Safety

As recommended by stakeholders, staff initiated outreach to California experts in food and safety to resolve questions or concerns about the impact efficiency standards on dipper wells could have on sanitation of dipper wells. Below are a sample of responses from representatives of county environmental departments or divisions.

Questions posed to public health officials included the following:

- How do inspectors' grade or inspect dipper wells?
- How are alternatives to dipper wells graded or inspected?
- Is there a minimum flow rate that is considered "of sufficient velocity to flush particles" [CRFC section 114119]?
- Does the department collect information on the types of appliances used in food establishments?
- Does the inspector verify or test that the dipper well properly rinses food residue?
- Do you see a pattern in the type of locations that use dipper wells based on your experience?
- Is there a ratio of number of utensils to the volume of dipper well bowls/sinks?
- Does the county have its own food and safety code?
- Are you seeing more alternatives to continuous dipper wells such as heated dipper wells?
- Does the inspector check for equipment certification on dipper wells?

Below is a summary of the responses staff received from public health officials so far.

California County	Response
Sacramento County Environmental Management Department	<p>Response #1:</p> <p>If a dipper well is being used, it is required to be running.</p> <p>Standing water with any type of food particles or residue can provide a medium for bacterial growth. The flow of the water can be very slow as long as it is sufficient to wash away particles and residue. The dipper well should still be cleaned and sanitized routinely.</p> <p>There aren't a lot of dipper wells out there and we do not track equipment.</p>

California County	Response
	<p>Many facilities keep utensils in an ice bath (<41F), in pH adjusted standing water (added vinegar), or in hot water - in insert on steam table/container on flat grill (over 135F)</p> <p>There are also fancy units that are an alternative to dipper wells and we are seeing these more often now, but they are too expensive for most food facility operators. Examples:</p> <p>https://gatorchef.com/products/conservewell-heated-drop-in-utensil-holder-with-timer-server-products-87770</p> <p>https://www.katom.com/003-87760.html?gclid=EAiaIQobChMIjKz87qb_QIVbRWtBh021gvqEAQYASABEgJ-iPD_BwE</p> <p>Response #2:</p> <p>We generally make sure that the water in the dipper well is clean.</p> <p>We do see dipper wells in ice cream shops and often in restaurants like Denny's or IHOP.</p> <p>There is no ratio of utensils to bowl – it just needs to look like its functioning properly.</p> <p>All counties in California enforce the California Retail Food Code</p> <p>https://emd.saccounty.gov/EH/Documents/CALIFORNIA%20RETAIL%20FOOD%20CODE.pdf</p>
City of Berkeley Division of Environmental Health	<p>A dipper well should have cold running water and the inner and outer surfaces should be clean to be regarded as code compliant. If an ice cream case does not have a dipper well the scoop may be stored inside the freezer in a sanitized container.</p> <p>A scoop held in a dipper well is considered "rinsed" between uses. We also require sanitization every 24 hours if the water holding a utensil is below 41F. If the water is above 41F the utensil should be sanitized every 4 hours.</p> <p>We don't collect information regarding equipment used in food facilities, although all equipment is vetted for code compliance prior to use or installation.</p>

California County	Response
Butte County Public Health	<p>We have to follow the California Retail Food Code, and this is the section on in-use utensils:</p> <p>114119. In-use utensils, between-use storage</p> <p>During pauses in FOOD PREPARATION or dispensing, FOOD PREPARATION and dispensing UTENSILS shall be stored in the following manner:</p> <p>(a) Except as specified under subdivision (b), in the FOOD with their handles above the top of the FOOD and the container. (b) In FOOD that is not POTENTIALLY HAZARDOUS, with their handles above the top of the FOOD within containers or EQUIPMENT that can be closed, such as bins of sugar, flour, or cinnamon.</p> <p>(c) On a clean portion of the FOOD PREPARATION table or cooking EQUIPMENT only if the in-use UTENSIL and the FOOD-CONTACT SURFACE of the FOOD PREPARATION table or cooking EQUIPMENT are cleaned and sanitized at a frequency specified under section 114117.</p> <p>(d) In running water of sufficient velocity to flush particulates to the drain, if used with moist FOOD such as ice cream or mashed potatoes.</p> <p>(e) In a clean, protected location if the UTENSILS, such as ice scoops, are used only with a FOOD that is not POTENTIALLY HAZARDOUS.</p> <p>(f) In a container of water if the water is maintained at a temperature of at least 135°F and the container is cleaned at least every 24 hours or at a frequency necessary to preclude the accumulation of soil residues.</p> <p>As you can see, ice cream utensils need to be stored in running water, or the alternative could be (f) above where a steam table where the water is kept at 135°F or above.</p> <p>We just need to ensure that whatever device they are installing follows that part of the code and are NSF certified.</p>

California County	Response
<p>County of El Dorado</p> <p>Environmental Management Department</p>	<p>During an inspection at a typical ice cream store inspectors would evaluate food storage equipment including dipper wells. Staff would check to see that the dipper well was functioning properly by checking to see if water was flowing through the dipper well and that it was draining from the dipper well. However, we do not have a specific flow rate that we are checking when inspecting dipper wells.</p> <p>Our department evaluates equipment to be installed in restaurants when they are remodeled or when a new restaurant is being built. Although we don't have a list of equipment installed in each restaurant, we do review each piece of commercial equipment installed in each food facility.</p>