



DOCKET

08-AAER-1B

DATE OCT 22 2008

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October 22, 2008

Ms. Jackalyne Pfannenstiel
Chairman and Associate Member, Efficiency Committee

Mr. Arthur Rosenfeld
Commissioner and Presiding Member, Efficiency Committee

California Energy Commission
Buildings and Appliances Office
1516 Ninth Street, MS-25
Sacramento, CA 95814-5512

**Subject: Additional PG&E Comments on Title 20 45-Day Language for
Portable Electric Spas;**

**RE: 2008 Rulemaking on Appliance Efficiency Regulations;
Docket No. 08-AAER-1-B; Portable Electric Spas**

Dear Ms. Pfannenstiel and Mr. Rosenfeld:

These comments are in addition to the comments submitted by PG&E dated October 8, 2008. The specific purpose of these comments is to provide clarification of the spa fill volume as defined in the test method in Section 1604(g)(2)(B).

Comments received by the CEC from some spa manufacturers on Portable Electric Spas will differ slightly from PG&E's comments submitted October 8, 2008, for the recommended language for Section 1604(g)(2)(B). Although PG&E, the Association of Pool and Spa Professionals (APSP), and individual manufacturers worked together extensively to reach agreement before comments were submitted to the CEC, the importance of rewording the fill volume in Section 1604(g)(2)(B) for accuracy and clarity was brought to PG&E's attention by Carvin DiGiovanni of APSP and Michael Kite of Freeflow Spas after PG&E submitted their comments. PG&E acknowledges APSP, Carvin DiGiovanni, and Michael Kite for their contribution and for bringing this detail to PG&E's attention.

After discussions with Carvin DiGiovanni and Michael Kite, PG&E agrees that the language should be changed and recommends the following language:

1604(g)(2)

(B) The spa shall be filled with water to the halfway point between the bottom of the skimmer ~~basket~~ opening ~~into the tub~~ and the top of the spa. If there is no skimmer basket, the spa shall be filled with water to six inches below the top of the spa.

For reference, the text above was copied from PG&E's comments dated October 8, 2008, with the new changes denoted in red font.

The change recommended in this letter clarifies that the bottom measurement point is the bottom of the skimmer opening where the water flows into the tub, not the bottom of the skimmer basket which can be several inches deeper than the opening.

The recommendation above is reflected in APSP's comments to the CEC dated October 13, 2008, which PG&E agrees with. The attachment following this letter is an updated and comprehensive version of PG&E's language recommendations for Portable Electric Spas and includes the change discussed above. This replaces the recommended language in the letter dated October 8, 2008.

We appreciate your consideration. Please contact me if you need further clarification.

Sincerely,

Patrick Eilert
Program Manager, Codes and Standards
Pacific Gas & Electric Company

ATTACHMENT: SPECIFIC RECOMMENDED CHANGES TO TITLE 20 45-DAY LANGUAGE FOR PORTABLE ELECTRIC SPAS - UPDATED

The following revisions to the August 2008 Title 20 45-Day Language are recommended to clarify the spa volume and the test method.

1602(g)

“Spa volume” means the actual fill volume of the spa, under normal use, in gallons, as defined in the test method in Section 1604(g)(2)(B).

1604(g)

(2) Test Method for Portable Electric Spas

The test method for portable electric spas is as follows:

(A) Minimum continuous testing time shall be 72 hours.

(B) The spa shall be filled with water to the halfway point between the bottom of the skimmer opening into the tub and the top of the spa. If there is no skimmer basket, the spa shall be filled with water to six inches below the top of the spa.

~~(B) (C)~~ The water temperature shall ~~remain at or above the test temperature of~~ be 102°F, $\pm 2^\circ\text{F}$ for the duration of the test.

~~(C) (D)~~ The ambient air temperature shall ~~remain at or below the test temperature of~~ be 60°F, $\pm 3^\circ\text{F}$ for the duration of the test.

~~(D) (E)~~ The standard cover that comes with the unit shall be used during the test.

~~(E) (F)~~ The test shall start when the water temperature has been at 102°F, $\pm 2^\circ\text{F}$ for at least four hours.

~~(F) (G)~~ Record the total energy use for the period of test, starting at the end of the first heating cycle after the ~~four hour~~ stabilization period specified in Section 1604(g)(2)(F), and finishing at the end of the first heating cycle after 72 hours has elapsed.

~~(G) (H)~~ The unit shall remain covered and in the default operation mode during the test. Energy-conserving circulation functions, if present, must not be enabled if not appropriate for continuous, long-term use. Ancillary equipment including, but not limited to lights, audio systems, and water treatment devices, shall remain connected to the mains but may be turned off during the test if their controls are user accessible.

(I) The measured standby power shall be normalized to a temperature difference of 37°F using the equation, $P_{norm} = P_{meas} \frac{\Delta T_{ideal}}{\Delta T_{meas}}$.

Where:

P_{meas} = measured standby power during test (E/t)

$\Delta T_{ideal} = 37^\circ\text{F}$

$\Delta T_{meas} = T_{\text{water avg}} - T_{\text{air avg}}$

$T_{\text{water avg}}$ = Average water temperature during test

$T_{\text{air avg}}$ = Average air temperature during test

~~(H) (J)~~ Data reported shall include: spa identification (make, model, S/N, specifications); volume of the unit in gallons; ~~cover R-value~~; supply voltage; ~~average relative humidity during test~~; minimum, maximum, and average water

temperatures during test; minimum, maximum, and average ambient air temperatures during test; date of test; length of test (t, in hours); total energy use during the test (~~P~~E, in Wh); and normalized standby power (~~P~~t, Pnorm, in watts).

1605.3(g)

(6) **Portable Electric Spas.** The normalized standby power, as defined in Section 1604(g)(2)(I), of portable electric spas manufactured on or after January 1, 2006, shall be not greater than $5(V^{2/3})$ watts where V = the fill ~~total~~ volume, in gallons.

Table ~~VX~~ Continued - Data Submittal Requirements

Portable Electric Spas

*Voltage

Volume (gallons)

Rated Capacity (number of people)

~~Insulation R-value of Spa Cover Provided with the Spa~~

Normalized Standby Power (watts)

Spa Enclosure is Fully Insulated Yes, no

~~If Spa is Fully Insulated, R-value of Insulation~~

REFERENCES

CEC 2008. California Energy Commission, *Proposed Amendments to Appliance Efficiency Regulations (Express Terms) California Code of Regulations, Title 20, Sections 1601 through 1608, 45-Day Language*, Docket Number 08-AAER-1B, Publication Number CEC-400-2008-021, August 29, 2008.