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*Comment Received From: Gregory Ceton
Submitted On: 7/1/2024
Docket Number: 24-BSTD-02*

PHTA CPSA Comments on 2025 CALGreen Rulemaking Docket 24-BSTD-02

Additional submitted attachment is included below.



Commissioner Andrew McAllister
California Energy Commission (CEC)
Docket Unit, MS-4
715 P Street
Sacramento, California 95814

July 1, 2024

Submitted via: [Docket Log 24-BSTD-02](#)

RE: Pool/spa heating comments on 45-day language for 2025 CALGreen Standard

Commissioner McAllister and California Energy Commission Staff:

The Pool & Hot Tub Alliance (PHTA) represents more than 4,000 company members and over 11,000 individual members nationwide, including companies that manufacture pool and spa heating equipment. PHTA has a long history of working with the California Energy Commission (Commission or CEC) and appreciates the opportunity to provide feedback on the current proposed language.

The California Pool & Spa Association (CPSA) is the statewide trade association that represents more than 230 company members in the state of California, including pool and spa builders, service companies, manufacturers, and distributors.

PHTA and CPSA submit the following comments on the Commission's Express Terms for 2025 California Green Building Code, Title 24, Part 11 (CALGreen), Appendices A4.2 & A5.2.

Heat Source Control References to Section 110.2(b)

The comment expressed below parallels a similar comment that PHTA and CPSA made on the Title 24, Part 6 45-day Express Terms. Those terms included a reference to control requirements in *SECTION 110.2 – MANDATORY REQUIREMENTS FOR SPACE-CONDITIONING EQUIPMENT, 110.2(b) Controls for heat pumps with supplementary heaters*. That reference appears again in Title 24, Part 11 45-day Express Terms in *A4.204.1.2 Altered Pool or Spa Heating requirements*.

In response to the PHTA and CPSA comments submitted for this reference in Part 6, in their 15-day language, the Commission removed the reference to section 110.2(b) from 110.4(c) 2 and replaced it with the following language in Section 110.4(d):

SECTION 110.4 – MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT

...

- (c) **Heating Source Sizing.** Heating systems or equipment for pool and/or spa shall meet one of the sizing requirements of 1 ~~2, or 3~~ through 5 below:
1. A solar pool heating system with a solar collector surface area that is equivalent to the following:

- A. For nonresidential and multifamily buildings, 65 percent or greater of the pool and/or spa surface area.
- B. For single family buildings, 60 percent or greater of the pool and/or spa surface area. ~~or~~
2. A heat pump pool heater as the primary heating system that meets the sizing requirements of Reference Joint Appendix JA16.3. The control for the heat pump pool heater shall meet the requirements specified in section 110.2(b). The backup supplementary heater can be of any energy source; or
3. A heating system that derives at least 60 percent of the annual heating energy from on-site renewable energy or on-site recovered energy.
4. A combination of a solar pool heating system and heat pump pool heater without any additional supplementary heater; or
5. A pool heating system determined by the Executive Director to use no more energy than the systems specified in Items 1, 2, 3, or 4 above.

(d) Controls for Heat Pump Pool Heaters with Supplementary Heating. Heat pump pool heaters with supplementary heaters shall have controls that meet the following:

1. Supplementary heater shall not operate when the heating load can be met by the heat pump pool heater alone; and
2. The cut-on temperature for heat pump heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for heat pump heating is higher than the cut-off temperature for supplementary heating.

(Double strikethroughs and underlines show changes from 45-day Express Terms to 15-day Express Terms. Highlight added by PHTA and CPSA for emphasis.)

These changes made by CEC reflect two important facts.

- 1) Section 110.2(b) is intended solely for controls used for space heating and cooling and does not apply to pools or spas.
- 2) "Backup heater" was replaced by "supplementary heater" for both consistency and to correctly identify the nature of this second system; that it was not in place in case of failure of the first system, but rather to supplement its operation.

Considering the CEC actions taken partially in response to PHTA and CPSA comments on the Part 6 45-day Express Terms, we request that the CEC to take the same action with regards to the reference in Express Terms for Title 24, Part 11 (CALGreen), Appendices A4.2 & A5.2.

PHTA and CPSA request that CEC remove the reference to Section 110.2(b) entirely or insert language that parallels the language in Part 6, Section 110.4(d). Doing so will help prevent conflict within the Code and potential confusion for users.

Response to California Statewide Utility Codes and Standards Enhancement (CASE) Team June 27 Comments on Controls for Heat Pump Pool Heaters

In its June 27 comments submitted to the Commission, the CASE Team recommended inserting revised limiting language¹ in section A4.204 Controls for Heat Pump Pool Heaters as follows:

- A4.204.1.3 Controls for Heat Pump Pool Heaters.** Controls for heat pump pool heaters with supplementary heating. Heat pump pool heaters with supplementary heaters shall have controls:
1. That prevent supplementary heater operation when the heating load can be met by the heat pump pool heater alone; and

¹ CA Utility California Statewide Utility Codes and Standards Enhancement (CASE) Team Comments - Statewide CASE Team Comments on 2025 Green Building Standards Code, Title 24, Part 11, Express Terms, 45-Day Language [TN#: 256431-4] May 16, 2024, p.5, row 18.

2. In which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.

PHTA and CPSA can support the resolution that the Commission previously approved for the Title 24, Chapter 6 15-Day Express Terms, which placed parallel language in Section 110.4(d) Controls for Heat Pump Pool Heaters with Supplementary Heating. Our concern lies with the insertion of the undefined term “compression heating” (*highlight added by PHTA/CPSA for emphasis and clarity*).

We assume that CASE meant for compression heating to serve as a substitute term for “heat pump water heater (HPPH)” a term that is well understood in the industry. While most heat pumps operate through compression heating, not all do, so the language is unnecessarily limiting.

PHTA and CPSA request that if the above referenced CASE comment is accepted by the Commission, that the term “heat pump pool heating” replace “compression heating” in A4.204.1.3 Controls for Heat Pump Pool Heaters.

Pool and Spa Heating Exceptions Provided in Title 24, Part 6 45-day Express Terms.

The Commission provided several key exceptions in Title 24 Part 6 45-day Express Terms Section 110.4 – Mandatory Requirements for Pool and Spa Systems and Equipment, Section 110.4(c). These exceptions remain, largely unchanged, in the Title 24, Part 6 15-day language. The only modification to these exceptions was the insertion of a reference to Section 150.1(c)14 to provide clearer guidance for requirements for spa heating systems which cannot be powered by solar power.

I have listed these exceptions below for reference.

Exception 1 to Section 110.4(c): Portable electric spas compliant with 20 CCR § 1605.3(g)(7) of the Appliance Efficiency Regulations.

Exception 2 to Section 110.4(c): Alterations to existing pools and/or spas with existing heating systems or equipment.

Exception 3 to Section 110.4(c): A pool and/or spa that is heated solely by a solar pool heating system without any backup heater.

Exception 4 to Section 110.4(c): Heating systems which are used exclusively for permanent spa applications in existing buildings with gas availability.

Exception 5 to Section 110.4(c): Heating systems which are used exclusively for permanent spa applications where there is inadequate eSolar Access Roof Area (SARA) as specified in Section 150.1(c)14 for a solar pool heating system to be installed.

The above exceptions expand the opportunity to use alternatives to heat pump pool and spa heaters where conditions make use of heat pump pool and spa heaters impractical or impossible. Having these exceptions in CALGreen will balance potential negative impacts on pool users, owners, and operators that will occur without these exceptions, while maintaining minimized impact on the CEC’s energy efficiency and carbon emission reduction goals.

PHTA and CPSA request that CEC parallel the above exceptions in Title 24, Part 11 (CALGreen).

We refer the Commission back to our comments for Title 24, Part 6, that expands upon the reasoning for the exceptions. PHTA/CPSA comments from 5/13/2024, 1/19/2024, and 11/17 2023 are attached below in full for convenience.

Response to California Statewide Utility Codes and Standards Enhancement (CASE) Team June 27 Comments on Exceptions Included in Chapter 11

In its June 27 comments submitted to the Commission, the CASE Team recommended revised language paralleling the Exceptions to Section 110.4(c) that were included in the Commission's 15-Day Express Terms. The CASE comment for its recommended Exception 4² is reproduced below.

Exception 4 to A4.204.1.2: Heating systems which are used for pools or permanent spa applications where the available qualifying roof area is less than 65 percent of the combination of surface areas of the pool and spa. The qualifying roof area shall have no less than 70 percent annual solar access. Annual solar access is determined by dividing the total annual solar insolation, accounting for shading obstructions, by the total annual solar insolation if the same areas were unshaded by obstructions. Only roof areas located within 250 feet of the pool or permanent spa shall be consider for inclusion as qualifying roof area.

Except for tying the size of available qualifying roof area to the total pool and spa surface area, the above requirements relating to solar access are already detailed in the SARA requirements in the 2022 Title 24 Section 140.10(a) Photovoltaic requirements.

PHTA and CPSA recommend that the Commission tie the solar accessibility requirements to existing code language and not create a separate path for compliance for pool and spa owners and operators.

We welcome your careful consideration of the comments we have provided to the pool and spa-related proposals for the 2025 California Green Building Code (CALGreen), Title 24, Part 11. If you have any questions on these comments, please contact me at gceton@phta.org on behalf of PHTA.

Sincerely,



Gregory Ceton
Director, Codes and External Standards
Pool & Hot Tub Alliance

cc: Justin Wiley, PHTA VP of GR, Standards and Codes, jwiley@phta.org
Tyler Jones, PHTA Director, Government Relations, tjones@phta.org
Jennifer Hatfield, Government Affairs Consultant, PHTA, jen@jhatfieldandassociates.com

² CA Utility California Statewide Utility Codes and Standards Enhancement (CASE) Team Comments - Statewide CASE Team Comments on 2025 Green Building Standards Code, Title 24, Part 11, Express Terms, 45-Day Language [TN#: 256431-4] May 16, 2024, p.5, row 17.



May 13, 2024

Submitted via: [Docket Log 24-BSTD-01](#)

Re: Pool/spa heating comments on 45-day language for 2025 Building Energy Efficiency Standards

California Energy Commission Staff:

The Pool & Hot Tub Alliance (PHTA) represents more than 3,650 company members and over 11,000 individual members nationwide, including companies that manufacture pool and spa heating equipment. PHTA has a long history of working with the California Energy Commission (Commission or CEC) and appreciates the opportunity to provide feedback on the current proposed language.

The California Pool & Spa Association (CPSA) is the statewide trade association that represents more than 230 company members in the state of California, including pool and spa builders, service companies, manufacturers, and distributors.

PHTA and CPSA are grateful for the opportunity to participate in this rulemaking and the serious consideration and positive response that the Commission has given the comments that PHTA and CSPA have previously submitted.

PHTA and CSPA have one additional comment on the March 28, 2024, proposed changes to 2025 Building Energy Efficiency Standards, Title 24 Parts 1 and 6, Express Terms, 45-day Language. The comments appear in their entirety on the attached pages that follow. Additionally, we are reiterating previous comments on the need to retain the exceptions provided in the 45-day Language, along with specifically responding to other comments that have recently been submitted.

We welcome your careful consideration of the comments below in response to the pool and spa-related proposals for the 2025 California Energy Code. If you have any questions on these comments, please contact me at gceton@phta.org on behalf of PHTA.

Sincerely,

A handwritten signature in black ink, appearing to read 'GCeton', written in a cursive style.

Gregory Ceton
Director, Codes and External Standards
Pool & Hot Tub Alliance

cc: Justin Wiley, PHTA VP of GR, Standards and Codes, jwiley@phta.org
Tyler Jones, PHTA Director, Government Relations, tjones@phta.org
Jennifer Hatfield, Government Affairs Consultant, PHTA, jen@jhatfieldandassociates.com

Referential Language in 45-Day Express Terms

PHTA and CSPA have a concern with some language and internal references found in the 45-day Express Terms, that start from section 110.4 (c) Heat Source Sizing.

(Sections below taken from 2025 Building Energy Efficiency Standards, Title 24 Parts 1 and 6, Express Terms, 45-day Language. **Highlights** added by PHTA for emphasis.)

p. 203:

SECTION 110.4 – MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT

...

p. 204:

(c) **Heating Source Sizing.** Heating systems or equipment for pool and/or spa shall meet the sizing requirements of 1, 2, or 3 below:

...

2. A heat pump pool heater as the primary heating system that meets the sizing requirements of Reference Joint Appendix JA16.3. **The control for the heat pump pool heater shall meet the requirements specified in section 110.2(b).** The backup heater can be of any energy source; or

...

p. 154:

SECTION 110.2 – MANDATORY REQUIREMENTS FOR SPACE-CONDITIONING EQUIPMENT

...

p. 155

(b) **Controls for heat pumps with supplementary electric resistance heaters, for non-residential and multifamily buildings..**

Controls for heat pumps with supplementary heaters for single family residential buildings are provided in Section 150.0(h)7. For non-residential and multi-family buildings ~~h~~heat pumps with supplementary electric resistance heaters shall have controls:

1. That prevent supplementary heater operation when the heating load can be met by the heat pump alone; and
2. In which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.

...

p. 437:

SUBCHAPTER 7 SINGLE-FAMILY RESIDENTIAL BUILDINGS – MANDATORY FEATURES AND DEVICES

SECTION 150.0 – MANDATORY FEATURES AND DEVICES

...

p. 439:

(h) **Space-conditioning equipment.**

...

p.441:

- 7. Supplementary heating control configuration.** Heat pumps with supplementary heat, including, but not limited to, electric resistance heaters or gas furnace supplementary heating, shall comply with the following requirements:
- A. Lock out supplementary heating above an outdoor air temperature of no greater than 35°F. There are additional thermostat requirements in section 150.0(i)2.
 - B. The installer shall certify on the Certificate of Installation that the control configuration has been tested in accordance with the testing procedure found in the CF2R.
 - C. The controls may allow supplementary heater operation above 35°F only during defrost; or when the user selects emergency operation.

Exception 1 to Section 150.0(h)7: Room air-conditioner heat pumps.

Exception 2 to Section 150.0(h)7: Buildings in Climate Zones 7 and 15.

PHTA and CSPA believe that the above references are simply in error. Following the chain of references that starts in *SECTION 110.4 – MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT* we are taken to Section 110.2 (b) for mandatory control requirements for heat pump pool heaters. This section then references Section 150.0(h)7 for controls for heat pumps with supplementary heaters. Primary and supplementary heating includes most residential pool heaters considered by this proposed change.

If one follows the chain of references, one arrives at the concluding requirement that supplementary heating be locked out “above an outdoor air temperature of no greater than 35°F.” This is well below the range where pool and spa heat pump heaters best perform and would force no use of supplementary heating until well below the temperature where most bathers would use their swimming pool or spa.

This chain of references would also contradict at least two of the exceptions provided in 110.4(c) in the last round of comments.

Since the referenced sections appear by their location and language to be intended to regulate residential space heating and *not* pool and spa heating, we think the first reference to 110.2(b) is in error.

Considering the above reasoning, PHTA and CSPA request that the Commission revise the language in 110.4 (c)2. so that the reference to 110.2(b) is struck.

2. A heat pump pool heater as the primary heating system that meets the sizing requirements of Reference Joint Appendix JA16.3. ~~The control for the heat pump pool heater shall meet the requirements specified in section 110.2(b).~~ The backup heater can be of any energy source; or *(Highlight provided for emphasis by PHTA and CSPA)*

If that strikeout is not a preferred solution for the Commission, know that PHTA and CSPA are happy to discuss this further and assist with any additional changes or alternate language that the Commission believes may need to be made.

Response to CASE and CI Team comments and NRDC et al comments

In comments related to CEC actions contained in the Title 24 45-Day Express Terms, both CASE and CI³, and NRDC et al⁴ comments raised concerns in a few areas that PHTA and CPSA would like to respond to.

- 1) **Expansion of exceptions to all building types.** Both CASE/CI and NRDC et al have responded negatively to the expansion of Exception 2 to Section 110.4(c) because of its revised breadth. The basis for this negative comment is the “lost opportunity for savings available to the state and denies building owners and their residents the energy, cost and environmental benefits”⁵ that would result from such a mandate. PHTA and CPSA question the amount of putative savings put forth by CASE, but our concern is more with CASE’s support of such a broad mandate. Forced compliance to meet the state’s goals would inevitably result in numerous challenges for multifamily communities and nonresidential businesses seeking to replace in kind their existing heating system. PHTA and CPSA stand by their earlier comments that the draft express terms not incorporating multifamily and nonresidential with the single-family exception would have resulted in space capacity and funding issues.

In the NRDC et al comments, they also express concern with the new exceptions for permanent spas, but do not provide any basis for their request to remove these new exceptions. PHTA and CPSA stand by their earlier comments, recognizing the challenges that can exist to properly heat a permanent spa.

PHTA and CPSA agree with the exceptions as presented in the 45-Day language and appreciate the CASE/CI comments that provide suggestions on how to address this in the 2028 code cycle. We look forward to that discussion in the next code cycle.

- 2) **Negative impacts on other sectors.** CASE relates the negative impacts that would be experienced by affected market sectors “such as those from the solar industry, heat pump industry, environmental sector, and local communities with decarbonization goals.”⁶

PHTA and CPSA find it concerning that CASE prefers to shift the burden of change and compliance and the costs involved from a profit to these sectors to a cost to pool owners and users. The “negative impacts” to those who provide the alternative energy sources and goals that CASE is advocating for are more like lost benefits from a mandate than a direct negative impact that would be experienced without the mandate. The position of those sectors is unchanged from what it is today.

Rather than mandating the disruptive immediate adoption, PHTA and CPSA applaud the decision to provide these much-needed exceptions that allow for manageable movement towards CEC’s stated goals.

As for any deprivation experienced by local communities and the environmental sector, there is nothing in the 45-Day Express Terms that prevents these “local communities with decarbonization goals” from implementing local solutions to help meet those goals as may be appropriate for their constituents’ desires.

³ CA Utility California Statewide Utility Codes and Standards Enhancement (CASE) Team and Compliance Improvement (CI) Team Comments on 45-Day Express Terms [TN-256172] May 3, 2024, p.4, Appendix A Table 1: Substantive Recommendations, rows 32-33, p. 10, Table 2: Non-Substantive Recommendations, rows 49-54, p. 17.

⁴ Natural Resources Defense Council (NRDC) et al Comments on 45-Day Language [TN-256269], May 9, 2024, pp. 10-11, Comment 4.

⁵ CASE Comments. Appendix A, p. 15.

⁶ Ibid. Appendix A p. 15.

- 3) **Alternative calculation method for indoor pools.** The CASE/CI comments suggested that in JA16.3 an alternative calculation method based on the ASHRAE applications Handbook for indoor pools be added⁷. PHTA and CPSA are concerned with this suggestion for several reasons. First, it is our understanding this is for sizing HVAC systems for indoor pools and is therefore not appropriate for a heat pump pool heater. Second, the language presented in the Table does not appear to be an alternative calculation method from the manufacturer's specifications. Rather, it appears to be adding the Handbook method, as an additional sizing method that is required for indoor pools. Even if the Handbook were appropriate, the wording could result in a conflict between what the manufacturer requires and what the Handbook requires.

In all cases, the manufacturer's sizing specifications should prevail over any other method. If the Commission seeks to provide an alternative sizing method, it needs to be appropriate for heat pump pool heaters and only be applied if the manufacturer does not provide specifications.

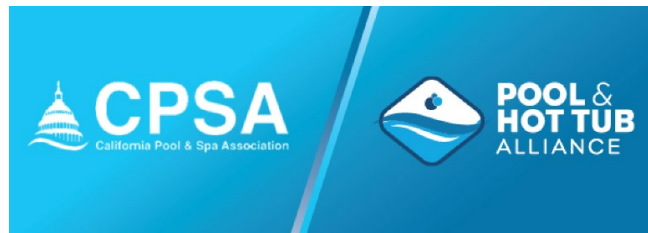
PHTA and CPSA appreciate the work of the CASE and CI Teams and have been pleased with their receptive and engaged attention to our needs and discussion. We look forward to working with them in the future to arrive at satisfactory conclusions to any regulatory proposals that work equally well for all parties concerned.

Reiterating the need for Exceptions

In partial response to the above CASE/CI and NRDC et al comments regarding PHTA and CPSA and concerning the references in the 45-Day Express Terms, PHTA and CPSA wish to emphasize the importance of our previously submitted comments on the exceptions being added to Section 110.4(c). We thank the Commission for consideration of those suggestions and their appearance in the 45-Day Express Terms. We refer to our January 19, 2024, and November 17, 2023, comments that substantiate the need for those exceptions. The relevant sections of those comments are included on the following pages for the Commission's ease of reference.

⁷ Ibid. Appendix A, Table 2: Non-Substantive Recommendations, Remark #52, p17.

January 19, 2024 PHTA/CPSA comments:



January 19, 2024

Submitted via: [Docket Log 22-BSTD-01](#)

Re: Additional pool/spa heating comment on Title 24 Pre-rulemaking Express Terms

California Energy Commission Staff:

The Pool & Hot Tub Alliance (PHTA) represents more than 3,650 company members and over 11,000 individual members nationwide, including companies that manufacture pool and spa heating equipment. PHTA has a long history of working with the California Energy Commission (Commission or CEC) and appreciates the opportunity to provide feedback on the initial proposed language.

The California Pool & Spa Association (CPSA) is the statewide trade association that represents more than 230 company members in the state of California, including pool and spa builders, service companies, manufacturers and distributors.

PHTA and CPSA welcomes your careful consideration of this additional comment to our previous comments submitted on November 17, 2023, in response to the pool and spa-related proposals for the 2025 California Energy Code. If you have any questions on these comments, please contact me at jen@jhatfieldandassociates.com on behalf of PHTA.

Sincerely,

A handwritten signature in black ink that reads 'Jennifer Hatfield'.

Jennifer Hatfield
Government Affairs Consultant
Pool & Hot Tub Alliance

cc: Justin Wiley, PHTA VP of GR, Standards and Codes, jwiley@phta.org

PHTA and CPSA previous comments were remiss in addressing one additional concern found in the pre-rulemaking expressed terms, that of exception 2 only applying to single family homes with existing heating systems or equipment for pools and/or spas.

Exception 2 to Section 110.4(c): A pool and/or spa serving single family buildings with existing heating systems or equipment for pools and/or spas.

Our understanding is the CASE team intended this exception to only apply to single family, requiring nonresidential and multifamily to meet the proposed new code pool/spa heating requirements when replacing an existing heating system. However, industry believes the impact to multifamily and nonresidential pools and spas currently utilizing gas heating and no longer being able to simply replace in kind, was not properly considered and justified. We encourage the CEC and CASE team to evaluate and consider the complications and cost associated with multifamily and nonresidential pools/spas, when a replacement is needed, to have to utilize the heat source systems and sizing requirements in Section 110.4(c).

Specifically, the Commission needs to consider space capacity limitations for these larger high capacity heat pump pool heaters or solar heating systems that would be needed in many nonresidential and multifamily pools and spas. In most cases, there simply is not enough space without major changes to the equipment pad or building to accommodate new heating systems. Even if enough space could be made with major modifications, the cost associated with doing so, including the electrical work that likely would be required to adjust for the new heating systems, is not being considered. Another aspect is the noise associated with multiple heat pumps that can be another constraint on where to locate the heating systems.

Public pools, condominiums, homeowner associations and the like will have funding and/or space constraint challenges that simply cannot be overcome. Not to mention the amount of electrical power associated with these larger heating systems that may be needed; resulting in a higher electricity bill. If an existing multifamily or nonresidential pool/spa is currently using a gas heater, they should be able to continue doing so by being afforded the same exception single family homes are provided within the pre-rulemaking express terms. In fact, in most cases, the challenges to change the type of heating system is much greater for nonresidential and multifamily applications due to the typically larger size of the pool/spa.

The largest capacity single-phase⁸ heat pumps are rated at 135 Kbtu⁹ at the DOE test condition¹⁰. The average size gas heater used to heat a pool or spa would be 400 Kbtu. Therefore, it would take a minimum of three, if not four, heat pumps to replace that gas heater. Each heat pump requires a 50 amp electrical service, so a facility would also need to increase the electrical service by 150 to 200 amps. This one example would cost \$15,000 to \$20,000 if the local utility could provide that service and does not account for the space constraints that likely also exist. Ultimately, this would be a huge undertaking for any multifamily or nonresidential pool currently using gas heating.

There is also the example of an Olympic size pool that requires millions of btus, but there are only so many hours in the day to heat it. Additionally, heat pumps generally lose 10 Kbtus for every 10 degree drop in ambient temperature. In certain climate zones and/or size of the pool this will make for a most difficult scenario for the facility to continue to heat the pool properly.

Further, in the cases of existing gas heating being utilized for any type of pool/spa, the gas resource is already there and the product is being regulated by federal energy efficiency standards. In this case, no

⁸ The maximum capacity for 3-phase heat pump pool heaters in the AHRI directory is 180 kBTu/h.

⁹ One single-phase heat pump pool heater is certified in the AHRI directory at 166 kBTu/h.

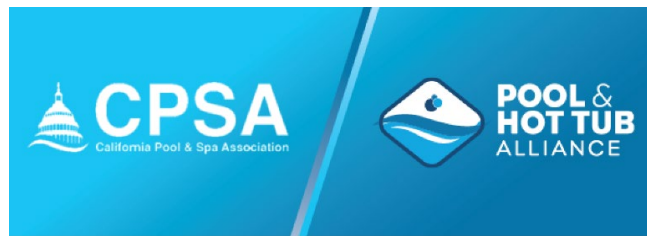
¹⁰ The DOE test condition is the High Air Temperature—Mid Humidity (63% RH) level specified in section 6 of AHRI 1160 (80.6 °F [27.0 °C] Dry-Bulb, 71.2 °F [21.8 °C]). See Appendix P to 10 CFR 430.

PHTA and CSPA January 19, 2024 comments on Title 24 rulemaking

matter if single family, multifamily or nonresidential, a requirement to change heating systems when a replacement of the current system is needed, should not be required. Depending on how old the existing gas heater is, it is also likely the new one installed will be more efficient based on ever increasing efficiency requirements. Existing pools/spas utilizing gas heaters may also be doing so specifically for their ability to heat quickly, especially in the case of vacation homes and rentals.

For all of the above reasoning, we request the Commission consider applying exception 2 to multifamily and nonresidential, along with single family. This critical change will provide the ability for all types of pools and spas to replace existing gas heaters, if one already is being utilized.

November 17, 2023 PHTA/CPSA comments:



November 17, 2023

Submitted via: [Docket Log 22-BSTD-01](#)

Re: Title 24 Pre-rulemaking Express Terms related to pool and spa heating

California Energy Commission Staff:

The Pool & Hot Tub Alliance (PHTA) represents more than 3,650 company members and over 11,000 individual members nationwide, including companies that manufacture pool and spa heating equipment. PHTA has a long history of working with the California Energy Commission (Commission or CEC) and appreciates the opportunity to provide feedback on the initial proposed language.

The California Pool & Spa Association (CPSA) is the statewide trade association that represents more than 230 company members in the state of California, including pool and spa builders, service companies, manufacturers and distributors.

PHTA and CPSA welcomes your careful consideration of these comments in response to the pool and spa-related proposals for the 2025 California Energy Code. If you have any questions on these comments, please contact me at jen@jhatfieldandassociates.com on behalf of PHTA.

Sincerely,

A handwritten signature in black ink that reads 'Jennifer Hatfield'.

Jennifer Hatfield
Government Affairs Consultant
Pool & Hot Tub Alliance

cc: Justin Wiley, PHTA VP of GR, Standards and Codes, jwiley@phta.org

PHTA and CPSA first would like to acknowledge the changes that have been made from the original CASE study language. Updating definitions and aligning requirements to reflect national codes and standards is something we support and appreciate those changes were made. However, a few concerns remain, as laid out below.

Section 110.4 (a)3. Instructions

3. **Instructions.** A permanent, easily readable and weatherproof plate or card that gives instruction for the energy efficient operation of the pool and/or spa heater, and for the proper care of pool and/or spa water, and to cover the pool and/or spa when a cover is not in used; and

PHTA and CPSA recommend the following the changes:

- (a)3. **Instructions.** A permanent, easily readable, and weatherproof plate or card that gives instruction for the energy efficient operation of the pool and/or spa heater, including providing the energy efficiency rating and for the proper care of pool and/or spa water, and to cover the pool and/or spa when a cover is not in used; and

Reasoning: These instructions apply to heater manufacturers and their pool heating products and therefore, instructions should be limited to what applies to that product. Heater manufacturers currently do not include instructions on pool/spa water care or on covering the pool when not in use. When it comes to pool/spa water care, it implies that a heater manufacturer is an expert on such care, which is not the case. Further, what standard or guidance is to be used and considered as “proper water care”. Requiring instructions to include covering the pool/spa when not in use is problematic as the heater manufacturer does not know what type of cover, if any, the pool/spa owner has and what life safety aspects need to be also be considered. For example, if it is a bubble cover, the homeowner needs to understand this is not a safety cover and the risks posed if a child were to get trapped underneath the cover. If it is a safety cover, those manufacturers are required to provide certification to the ASTM F1346 standard. And all cover manufacturers should be the ones providing instructions on the proper use of the product, which includes critical safety information. Consumers should be directed to the cover manufacturer instructions and not heater instructions when it comes to pool/spa covers.

These requirements are simply outside the scope of what a heater manufacturer is required to know and provide to the consumer. With all the other labeling heater manufacturers are required to do and then adding information outside of their expertise, heaters will be overloaded with information, diminishing effectiveness and the likelihood that a consumer will even read this information. Further, adding this information poses a risk of it not aligning with the instructions that do come with pool covers or water care items.

We suggest leave instruction requirements to what a pool heater manufacturer should know about and tell the consumer, which can and should include what the energy efficient rating of the product is. If this is the intent of what “instructions for proper energy efficient operation” is requiring, we suggest the verbiage be updated accordingly. PHTA also understands much of this instruction language was in the current Title 24 language, which we did not catch in past rulemaking cycles, but it is imperative the instructions be updated to be clear on what a pool heater manufacturer is required and with what makes sense based on the scope of their product.

Section 110.4(c) Heat Source Sizing

PHTA and CPSA recommend the Commission consider adding in additional exceptions under 110.4(c) as follows:

Exception 4 to Section 110.4(c): Gas heating systems used exclusively for permanent spa applications or where gas utilities already exist on the property.

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Exception 5 to Section 110.4(c): Gas heating systems used exclusively for permanent spa applications when there is not adequate solar access for a solar swimming pool or spa heating system to be installed.

Reasoning: Gas pool heaters are federally regulated by the Department of Energy; thus, requiring such heaters to have minimum energy efficiency requirements to be sold. Although the current proposal allows for gas pool heaters as a back-up or to be replaced when already being used by a consumer for their pool or spa, it does not provide allowance in additional situations that should be considered.

By adding an exception for consumers who already have gas utilities or who are simply looking to heat a permanent spa, it provides a practical heating solution. Consumers want choice. The fact the federal government allows for gas pool heaters that meet energy conservation standards, but then a citizen of California would not be allowed to utilize this option (in cases where it makes sense), limits practical and energy efficient options for consumers.

By adding an exception for allowing gas heating systems used exclusively for permanent spa applications, when there is not adequate solar access to install a solar heating system, this provides another way for a consumer to utilize a practical heating solution.

PHTA and CSPA welcome the opportunity to discuss these remaining suggestions and happy to answer any questions.