



**Comments on WaterSense® Notice of Intent (NOI)
to Develop a Draft Specification for Pool Covers**

April 4, 2019

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Commenter: Alan Korn, Scott and Katey Taylor
Affiliation: Abbey's Hope Charitable Foundation
Comment Date: February 13, 2019

Email Text:

Dear Ms Tanner,

Attached above is the comment letter from Abbey's Hope Charitable Foundation regarding the pending WaterSense Program.

Alan Korn
Executive Director
Abbey's Hope Charitable Foundation
202-680-8876

Email Attachment:

See pages 3 and 4.



February 12, 2019

Ms. Stephanie Tanner
Environmental Protection Agency
EPA Water Sense Program
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: WaterSense Notice of Intent

Dear Ms. Tanner,

Please accept this letter as Abbey's Hope Charitable Foundation's general support for the establishment of a WaterSense Specification for residential pool and spa covers. Abbey's Hope Charitable Foundation, does not have the technical expertise to comment specifically on all the detailed potential energy saving requirements and benefits of the program. We are, however, very interested in making sure safety is considered when crafting the program and in determining which pool and spa covers ultimately get ultimate WaterSense label.

As you may know, each year in the United States, approximately 800 children ages 14 and under die from drowning-related incidents. In addition, as many as 20 percent of near-drowning survivors suffer severe, permanent neurological disability. The statistics related to entrapment deaths and injuries, although not as large, are just as alarming. The Consumer Product Safety Commission has reported that over the past 15 years there have been at least 85 reported entrapment incidents that resulted in 12 deaths. Each one of these deaths and injuries was (and is) preventable if adults watch children when they are swimming and the pools and spas themselves are compliant with good safety practices.

We unfortunately know that these statistics are not just faceless numbers. In June of 2007, our six-year old daughter Abigail suffered a horrific injury while swimming in a public pool. That injury ultimately took her life. Abbey was playing in a wading pool when she unknowingly sat on a drain that was poorly maintained and unequipped with the appropriate safety devices. The powerful suction of the pool eviscerated Abbey. Her small intestine was ripped from her body. The serious injury was followed by 9 months of medical care, including 16 different surgeries, a triple organ transplant, several infections and most of her sixth year of life in a hospital bed. Despite the best medical care and attention and our constant vigilance and prayers, Abbey died March 20, 2008.

Our daughter Abbey's hope was that no child should ever suffer like she did as a result of an improperly maintained pool. In her memory, we established our Foundation. One of our greatest achievements, to date, was helping the United States Congress pass The Virginia Graeme Baker Pool Safety Act (VGB Act) which requires entrapment safety devices on all public pools. The law was signed by President Bush in 2007.

This landmark legislation is not, however, a complete solution. The VGB Act does not require the use of barriers like pool and spa covers to be used to protect against unfettered access. To that end, we work every day with

state legislatures and code officials around the country to promote these extra layers of protection. So anything that helps in that promotion is, in our view, a worthwhile effort. A well-planned, well-crafted and well-implemented WaterSense label will most certainly support that goal. Pool and spa covers, when properly deployed, can prevent accidental drownings and entrapments and can provide homeowners with the peace of mind that their pool or spa will not pose a risk to family members and unknown visitors.

We do believe, however, that the WaterSense moniker should be reserved (or at least preference given to) pool and spa covers that meet the specifications of ASTM F1346-91. Covers that meet this standard have to pass many tests that help ensure the product is safe. Tests like a *static load test* (to make sure the cover can support the weight of a child), a *perimeter deflection test* (to make sure there are no large openings around the cover that can provide access to a child) and a *surface drainage test* (that safe guards against dangerous amounts of water collecting on the cover's surface). The ASTM standard also requires appropriate consumer labeling and consumer education about safe use and potential dangers.

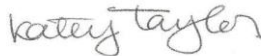
An unsafe cover, on the other hand, is an ineffective cover. The EPA should want the ultimate WaterSense label to be used only on the safest products.

We stand ready, willing and able to help the EPA in any fashion as this important program is developed. If you have any questions or need additional assistance, please feel free to contact our Executive Director Alan Korn by phone at 202-680-8876 or by e-mail at alankorn@msn.com.

Sincerely,



Scott Taylor
Chairman & Founder



Katey Taylor
President & Founder

Cc: Alan Korn, Executive Director

Commenter: Dan Hinrichs
Affiliation: Clise Properties
Comment Date: February 15, 2019

Email Text:

The only equipment we have is a hot tub that is enclosed. I have however managed properties in the past that had them. They are very efficient in saving energy by keeping the heat in the water and not in the air.

Dan Hinrichs
Director of Engineering
Clise Properties/Hotel Division
Best Western Executive Inn
Loyal Inn
La Quinta Inn & Suites
206-459-3945
dhinrichs@clisehotels.com

Commenter: Michael J. Shebek
Affiliation: Automatic Pool Covers, Inc.
Comment Date: March 5, 2019

Email Text:

Here is my letter for WaterSense.

All the best,
Michael

Michael Shebek | President
Automatic Pool Covers, Inc.
17397 Oak Ridge Rd. #100
Westfield, IN 46074
(800) 878-5789 Headquarters
Website: APC-Mfg.com

Email Attachment:

March 4, 2019

To: Stephanie Tanner, CEM, LEED AP BD+C
Lead Engineer
WaterSense Program
Environmental Protection Agency
Washington, DC
Via electronic mail

An automatic pool cover (APC) is a motorized pool cover that operates with a touchpad and/or a key. APC's must meet standard ASTM 1346-91 (2018). This standard is a performance specification for safety covers and labeling requirements for all covers for swimming pools, spas and hot tubs." In general, an APC takes about 45 seconds to open and close, and when closed the pool is inaccessible and the cover must support a minimum of 485 pounds. When the pool and the APC are properly installed it can, and does, hold as much as 10 times that weight.

Frequently, I am asked about the lifespan of automatic pool cover vinyl. In my 40 years of being involved in both an installation and service company and now as owner of a manufacturer of APC covers, I have seen the life of the automatic pool cover to be fairly predictable. The expected life of APC vinyl throughout the industry's nearly 60-year history has been between 6-8 years.

There are two (2) main factors affecting a cover's lifespan:

- The ingredients included in each manufacturer's vinyl recipe.
- The pool's region within the US, and whether that region has high or low level Ultraviolet (UV) radiation rays.

Finally, my company is Automatic Pool Covers, Inc. and we started in 1979 as an installation and service company in Indiana. After 24 years of installing covers, in 2003 with 30 employees, we began manufacturing our own cover systems as well as installing them in Indiana. Then in 2014, the company separated its installation and service employees into a separate company. Today, Automatic Pool Covers, Inc. employs 100 employees, and the service company also now employs over 100 employees.

In conclusion, I'd personally like to thank the WaterSense® team for their time and effort to consider the effectiveness of automatic pool covers as a water, energy and child saving device.

Sincerely,
Michael J. Shebek
CEO and Owner
Automatic Pool Covers, Inc.

Commenter: Tom Dankel
Affiliation: Aquamatic Cover Systems
Comment Date: March 13, 2019

Email Text:

Here it is in pdf .

Tom Dankel
Aquamatic Cover Systems
200 Mayock Rd
Gilroy CA 95020
p. [800.262.4044](tel:800.262.4044) x205
f. [408.846.1060](tel:408.846.1060)

www.aquamatic.com

Email Attachment:

See pages 9 and 10.



Stephanie Tanner, CEM, LEED AP BD+C

11 March 2019

Lead Engineer

WaterSense Program

Environmental Protection Agency

Washington DC

via electronic mail

Re: Regarding reasonable ways to mark products

Dear Ms. Tanner,

We are pleased that the NOI is moving forward, and the positive feedback received so far.

We would like to address the questions regarding “marking” the products, and information of same.

As everyone recognizes the EnergyStar logo, we are seeing this consumer awareness with the WaterSense logo, therefore, we think that the logo be added to the existing label that all ASTM F1346-91 covers already have.

Additionally, I would suggest adding the logo to the motors/drive units, and at the control switch.

This would mean the logo would be visible on three places of the automatic pool cover.

At point of sale, we would also add to all brochures (printed and electronic), website, and social media campaigns the WaterSense logo. We would support this with a fact sheet to further educate the consumer and water districts.

Aquamatic is a family business that is now heading into our 40th year, and located in the greater San Francisco Bay Area community of Gilroy. We have just added on 10,000 sq ft, and employ just over 60 people. We have representation in every state in the union through our vast dealer network. While safety was the early driver, the pendulum has swung to consumers regarding environmental responsibility, and with the data we have, the consumer can easily realize the ROI that a covered pool has versus an uncovered pool. This is what is now driving sales and where we see the most growth, based on our direct feedback from consumers, and dealers alike, from not only our domestic market, but worldwide as well.

I personally have gotten to know and work with many of your fine staff and the EPA, and would like to thank you and your team for your/their time and resources as we push to achieve a goal that is so very significant.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Tom Dankel', with a stylized, cursive script.

Tom Dankel VP

Aquamatic Cover Systems

Aquamatic Cover Systems
200 Mayock Rd. Gilroy CA 95020

Commenter: Jeffrey Hughes, Mary Ann Dickinson
Affiliation: Alliance for Water Efficiency
Comment Date: March 13, 2019

Email Text:

Hello,

Please accept the attached as public comment on the WaterSense® *Notice of Intent to Develop a Draft Specification for Pool Covers*. Thank you for the opportunity.

Best,
~Jeffrey

=====

Jeffrey A. Hughes
Director of Operations
Alliance for Water Efficiency
Chicago, Illinois
AllianceforWaterEfficiency.org
FinancingSustainableWater.org
Home-Water-Works.org

2018, 2017, and 2012 EPA WaterSense
Excellence Award Winner
for Strategic Collaboration

A small version of the EPA WaterSense logo, featuring a blue and green water drop.

If you are interested in learning more about the Alliance, I encourage you to sign up for our email list. You will get a monthly email with efficiency news and resources, plus a series of emails that provide additional content and tell you a bit more about what being an AWE member means.

Email Attachment:

See pages 12 through 14.

Public Comment Submission on WaterSense® Notice of Intent (NOI) to Develop a Draft Specification for Pool Covers

Commenter Name: Mary Ann Dickinson **Commenter Affiliation:** Alliance for Water Efficiency

Date of Comment Submission: March 13, 2019 **Submitted via:** watersense-products@erg.com

The Alliance for Water Efficiency (AWE) is supportive of WaterSense® seeking to increase the water efficiency of swimming pools. A WaterSense label could indeed be an important distinguishing factor when pool cover purchasing decisions are made.

While AWE supports the broader intentions of the effort, AWE is skeptical that labeling this product alone will achieve meaningful water savings. Swimming pools remind us a lot of irrigation systems in that they are frequently complex systems involving many parts, including filters, pumps, fountains, chemicals, and more. When WaterSense chose to address irrigation systems, it understood the complexity inherent in them, and paired product labeling with certification of irrigation professionals to raise the bar of knowledge and understanding in the industry.

AWE believes a similar systems approach will be required to make real progress on swimming pool water efficiency, an approach that includes maintenance professionals along with labeled products. AWE would like to see WaterSense develop a strategy to fully address swimming pool management from a water efficiency perspective, and in that approach applying the label to pool covers will be an important component.

With these general thoughts in mind, AWE offers the following specific comments.

II. Technical Background

AWE is not aware of any additional codes or standards or test methods relating to pool covers and water efficiency. The information that we see comes from the utility experience of managing pool cover rebate programs. The Southern Nevada Water Authority (SNWA) has managed a pool cover rebate program for a number of years, and notes that some low-cost bubble covers (which could qualify for the WaterSense label based on the data presented), have an expected life of only 2 – 3 years in the Nevada climate. Given the quantity of plastic involved with this product category, increased longevity could be a “performance” consideration for WaterSense.

AWE also recommends that manufacturers offer a 5 – 8 year (minimum) warranty for their product in order to qualify for any WaterSense label.

III. Existing Studies on Water Efficiency of Pool Covers

AWE believes that there have been presentations on the impact of pool covers at the WaterSmart Innovations Conference and Exposition starting in 2014, mostly based on research conducted in Southern Nevada. AWE encourages WaterSense staff to go through the 2014 – 2017 conference proceedings to find these presentations, which include information on the frequency of use of pool covers and expected savings. [E.g. *The Southern Nevada Water Authority's Pool Evaporation Assessment: An Assessment of Evaporative Rates from Single Family Residential Swimming Pools, 2013* \[PDF\]](#)

Beyond this research, AWE is not aware of any studies on the impact of pool covers, and believes that additional research may be warranted before a WaterSense specification is developed.

IV. Product Market

The cost of pool covers that might qualify for the WaterSense label range from \$300 - \$10,000 or more. If only the most expensive covers are included in the specification, then WaterSense-labeled covers may never find their way into above-ground backyard pools – which might just be the true “underserved” segment of this market.

AWE is concerned that neither the pool cover makers nor the pool industry itself is self-aware enough to respond to a WaterSense label. Awareness about the increased importance of water efficiency in the operation and management of swimming pools is needed. This relates to the need to address pool efficiency from a systems-approach.

There is the also issue of making pools themselves “cover ready” and “cover friendly”. Many pools are simply not designed with a cover in mind, and that needs to change as part of the market transformation WaterSense is working towards.

V. Scope

AWE believes WaterSense has an acceptable definition of pool covers, and is not aware of any companion products worthy of inclusion.

VI. Water Efficiency

AWE believes the 80% evaporation reduction is a reasonable criterion for WaterSense to adopt. The issue of water features (fountains, waterfalls, water slides, and other decorative features) that are integrated into pool systems and the surface area they represent must be considered.

VII. Performance and Product Testing

AWE believes that safety and product longevity must be considered. ASTM F1346-91 may be a venue to incorporate this consideration.

Consideration for safety should also be made, if that is an appropriate item to include in the specification.

VIII. Product Marking, Documentation, and Marketing

AWE believes this product could be labeled on the packaging, on the product itself, and in promotional materials related to the product. WaterSense should have detailed information supporting the label on its own website.

IX. Stakeholder Engagement

To be successful, AWE believes that WaterSense needs to engage the broader swimming pool industry in the effort to develop water-efficient swimming pools. Simply labeling pool covers will not be enough.

X. Additional Considerations for Promoting Water-Efficient Pool Design and Operation

Swimming pools are similar to irrigation systems in that they are frequently complex systems involving many parts, including filters, pumps, fountains, chemicals, and more. When WaterSense chose to address irrigation systems it understood the complexity inherent in these systems, and paired product labeling with certification of irrigation professionals to raise the bar of knowledge and understanding in the industry.

AWE believes a similar systems approach will be required to make real progress on swimming pool water efficiency, an approach that includes maintenance professionals along with labeled products. AWE would like to see WaterSense develop a strategy to fully address swimming pool management from a water efficiency perspective, and creating a WaterSense label for pool covers will be an important component.

XI. Final Comments

AWE encourages WaterSense staff to speak directly with Toby Bickmore of the Southern Nevada Water Authority and Gary Tilkian of the Metropolitan Water District of Southern California about their program management experiences with pools covers and related products.

Commenter: Bruce Grogg, Scott Rajeski, Matt Rowe

Affiliation: Latham Pool Products, Inc

Comment Date: March 20, 2019

Email Text:

Please see the attached letter being submitted by the Latham team for the EPA.

Thanks

Bruce

Bruce Grogg
President
Stone Edge Surfaces
A Division of Turley International resources, LLC.
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Mesa, AZ 85212
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Email Attachment:

See pages 16 and 17.



Date 3/15/19

As the former CEO of Pool Cover Specialists, and current Consultant for Latham Pool Products, pool water evaporation is an issue we've been continually confronted with.

On average, through evaporation, swimming pools can lose approximately $\frac{1}{4}$ to $\frac{1}{2}$ inches of water each day. These numbers are variable and depend on factors such as, but not limited to, wind intensity across the surface of the water, humidity, the time of year, and sunlight. The sum of the daily loss of water to evaporation equates to an estimated 2 to 4 inches of water loss per week for average sized pools, or about 10,000 to 25,000+ gallons of lost water per year per pool. Evaporation can be so extreme in some areas that many pool owners think they have a leak and will invest in leak detection services or reach out to the pool builder, repair services, and even the manufacturer for help.

Evaporation is the source of the greatest loss of water for almost every swimming pool in the US. Luckily, there is a simple and straightforward solution. The addition of a pool cover will reduce, immediately, evaporation by 30% to 50% (as per the DOE) or up to 90% (as per the 2016 Cal Poly Study). Logically, use of the pool cover is the key component in the reduction of evaporation. The ability to easily remove and replace a cover over a pool, or the "Convenience Factor," has been shown to be a strong indicator and has been closely correlated with pool owners' utilization of a pool cover.

Understanding the consequence evaporation has on the loss of pool water begins to shed light on the gravity of the situation. Following these simple steps, pool owners can determine how significant their water loss is:

- Identify and make note of a specific location around the pool
- Measure the distance from the underside of the pool coping to the surface of the water
- Make note of the date and time the measurement was taken
- Avoid the addition of any water or use of the pool for a one-week period
- At the conclusion of the week, and at the same location as the initial measurement, measure the distance from the underside of the pool coping to the surface of the water

The results can be converted into gallons lost per week.



Employing a hypothetical situation, a 20' wide x 40' long pool, with a surface area of 800 sq. ft. (surface area is L x W) is considered. Measurements, taken from the underside of the pool coping to the water surface, were 9", the second measurement taken a week later at 11".

- Assuming the level dropped 2" (11"-9"=2") or $2/12 = .166$ ft.
- VOLUME OF WATER LOST: $20' \times 40' \times .166' = 133.33$ cubic feet
- There is 7.48 gallons of water per cu ft.

AMOUNT OF WATER LOST: 133.33 cubic feet \times 7.48 gallons per cubic feet = 997.3 gallons per week

Based on studies performed by the Department of Energy and Cal Poly, given the example above, taking advantage of a pool cover could potentially save between 300 to 897 gallons of evaporated water per week. To better put these numbers in perspective, a pool cover could ultimately prevent 15,600 to 46,644 gallons of water from vaporizing into thin air each year.

Surprisingly, a significant number of automatic pool cover sales come from individuals who have existing covers for their pools. While well intentioned, the existing covers were too cumbersome and inconvenient to utilize on a regular basis. Without the level of convenience afforded by an auto cover (push-button operation that permits a pool owner to extend or retract a cover in seconds), it was just not feasible for the pool owners' other cover to be used on a daily basis as a water saving, energy saving, or life saving device. Despite wanting to be environmentally-responsible pool owners, most found that removing and replacing a manual style cover requires more than 1 person and "time" they didn't have.

Ultimately, there is simply no other way to save water on a swimming pool without installing and employing a pool cover. Manual covers will never provide the convenience of an automatic pool cover, and consequently manual covers will never be exploited to their full potential. As a result, concerning pools, when preserving water, energy, and lives are at the forefront of importance we are sincere advocates for automatic covers over manual covers (i.e., tie-down covers, solar blankets, bubble covers, etc.) receiving a WaterSense designation.

Thank you for your time and consideration in this matter.

Sincerely

Bruce Grogg

Bruce Grogg

Consultant for:

Latham Pool Products, Inc.

Scott Rajeski

Scott Rajeski

CEO

Latham Pool Products, Inc.

Matt Rowe

Matt Rowe

VP, Auto Covers Operations/EHS

Latham Pool Products, Inc.



Commenter: LaMont Drechsel
Affiliation: Cover-Pools Inc., A Fluidra Company
Comment Date: March 22, 2019

Email Attachment:

3/20/2019

Dear EPA WaterSense program management:

We are writing concerning the draft specification NOI released September 20th, 2018 for Pool Covers. In the NOI, EPA proposes the question about WaterSense requiring safety standards such as ASTM F1346-91 as a safety performance criteria for the specification.

As a manufacturer in the pool cover industry, who is committed to ensuring that we provide quality products for our users, as well as products that help maintain a safe, enjoyable recreational bathing environment for them, we unequivocally say "YES, safety standards should be considered when promoting a product for recreational pool use that also helps save water, like a pool cover does."

Most localities/jurisdictions enforce installation codes which require pool covers to be certified as complying with the requirements of standards such as ASTM 1346-91. This is often enforced in order to comply with many local pool permitting and construction requirements. Local Authorities Having Jurisdiction (AHJs) generally require documented proof to demonstrate that the cover manufacturer has taken the necessary steps to ensure that their pool cover is designed, manufactured and certified as being in compliance with the applicable requirements of relevant standards, such as ASTM F1346- 91.

Generally, the AHJs and the pool construction and installation codes which they are required to enforce, are looking for layers of redundant protection for the user. A pool cover which has been certified by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratories (UL) or Intertek (ETL), as meeting the applicable requirements of the ASTM F346-91 standard, along with some other device, such as a fence to prevent unauthorized access to the swimming pool area, helps to ensure a compliant construction. This approach has been shown to be a proven method to prevent drowning and save lives. If these current requirements to comply with relevant safety standards such as ASTM F1346-91 were relaxed or removed, it would be a step backwards for the safety of the user and could contribute towards an increase in entrapment and drowning incidents, something which we all have worked very hard to decrease and eliminate.

Safety is of the utmost importance to the automatic pool cover industry and we thank you for your time and consideration.

Sincerely,

LaMont Drechsel
VP, General Manager
Cover-Pools Inc.
A Fluidra Company.