

Navigating the 2021 DOE Pool Pump Regulatory Changes: Pro Tips from Hayward!

The webinar will begin at 2:00 pm EST

A few important notes:

- You do not need to enable video or have access to a webcam
- All attendees are automatically muted
- Questions are encouraged and may be typed into the Chat box in the webinar control panel
We will address as many questions as possible at the end of the presentation
- You can minimize the control panel to view the presentation unobstructed. To do so, click the horizontal line in the upper left corner of the window

Today's Host

Scott Webb is the Executive Editor for *AQUA Magazine* and is a nationally read author and speaker with 20 years' experience in the pool and spa industry.

AQUA Magazine is the top resource for retailers, builders and service pros in the pool and spa industry. Every month, thousands of spa and pool professionals turn to the online and print pages of *AQUA* for its valuable mix of news, trend and product coverage.



Reminder

If you would like to ask a question, please utilize the Control Panel on the **right side of your screen**. Our speaker from Hayward will address questions at the end of the presentation.

Shortly after the conclusion of the presentation, you will receive an email with information on how to watch the webinar again and how to share it with colleagues. Feel free to reach out to us if you have trouble accessing the content of this webinar.



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Featured Speaker



Scott Petty is the Global Product Manager of Pumps for Hayward, responsible for driving growth of this core product category. He is an active leader in the development of DOE-compliant and ENERGY STAR® certified products for Hayward's portfolio of leading efficiency pumps.



Navigating the 2021 DOE Pool Pump Regulatory Changes



Department of Energy Regulation Overview

DESCRIPTION

All pumps must be labeled with their **weighted energy factor (WEF)**

WEF is the new standard for all pump efficiency measurement

Standardizes HP with **Total Horsepower (THP)**

SCOPE

Impacts ALL in-ground, above-ground and commercial pumps up to ~5 HP

Applies only to newly manufactured pumps, **does not require product returns**

Supersedes existing state regs. (e.g. CA Title 20)

TIMING

JULY 19, 2021
Based on date manufactured



OPTIONS

Ultra-high efficiency pumps
(especially 1 HP+)

OR

High efficiency **single-speed pumps** (often up to 1 HP)

Regulation Scope

All Dedicated Purpose Pool Pumps (DPPP)

Applies to both Domestic and Imported

Single-Phase

Up to 2.5 HHP ¹

Minimum Efficiency Requirements ²
New Product Labeling



> 2.5 HHP

No Minimum Efficiency Requirements



Three-Phase

All Three-Phase Models

No Minimum Efficiency Requirements
New Product Labeling



¹ HHP = hydraulic horsepower and is proportional to pump head and flow, not motor horsepower; 2.5 HHP is ~5 HP

² Minimum efficiency requirements vary by product type (e.g. self-priming vs. non-self-priming)

Weighted Energy Factor

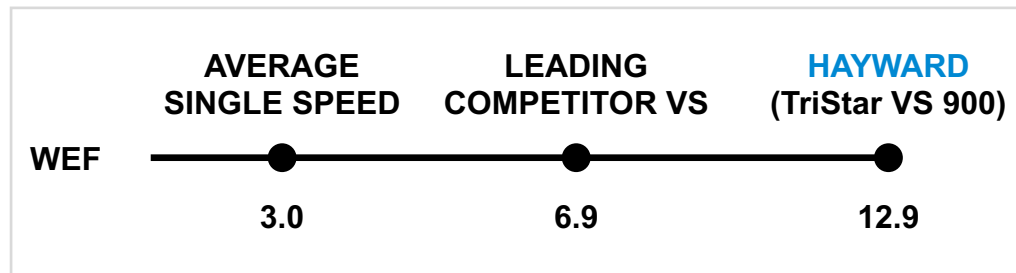
- Measure of a pump's overall energy efficiency
 - Comparable to MPG for vehicles and SEER for air conditioners
- Based on flow divided by power consumption
 - A higher number is better

Hayward has the highest WEF rating of any manufacturer*

- Every pump will be labeled with its WEF rating



$$\text{Efficiency} = \frac{\text{Output}}{\text{Input}} = \frac{\text{Bang}}{\text{Buck}}$$



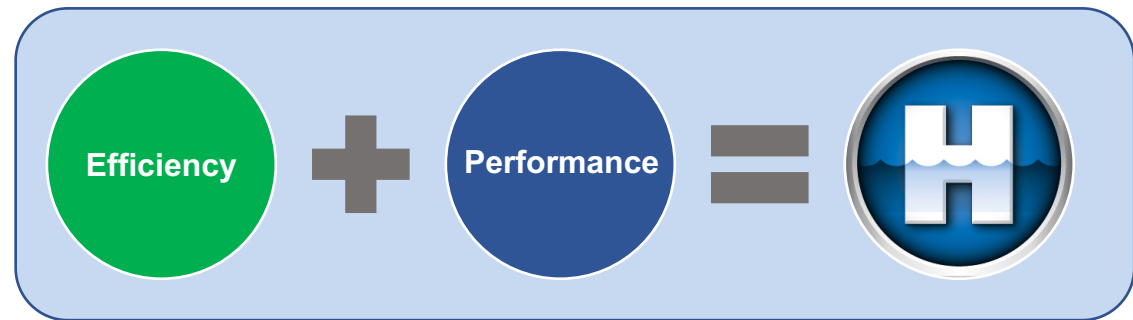
*Claim based on TriStar VS 900 pump rating per Dept. of Energy efficiency metrics as of June 1, 2021. Visit hayward.com/regulations for details.

Efficiency and Performance

- Higher efficiency does not equal limited performance

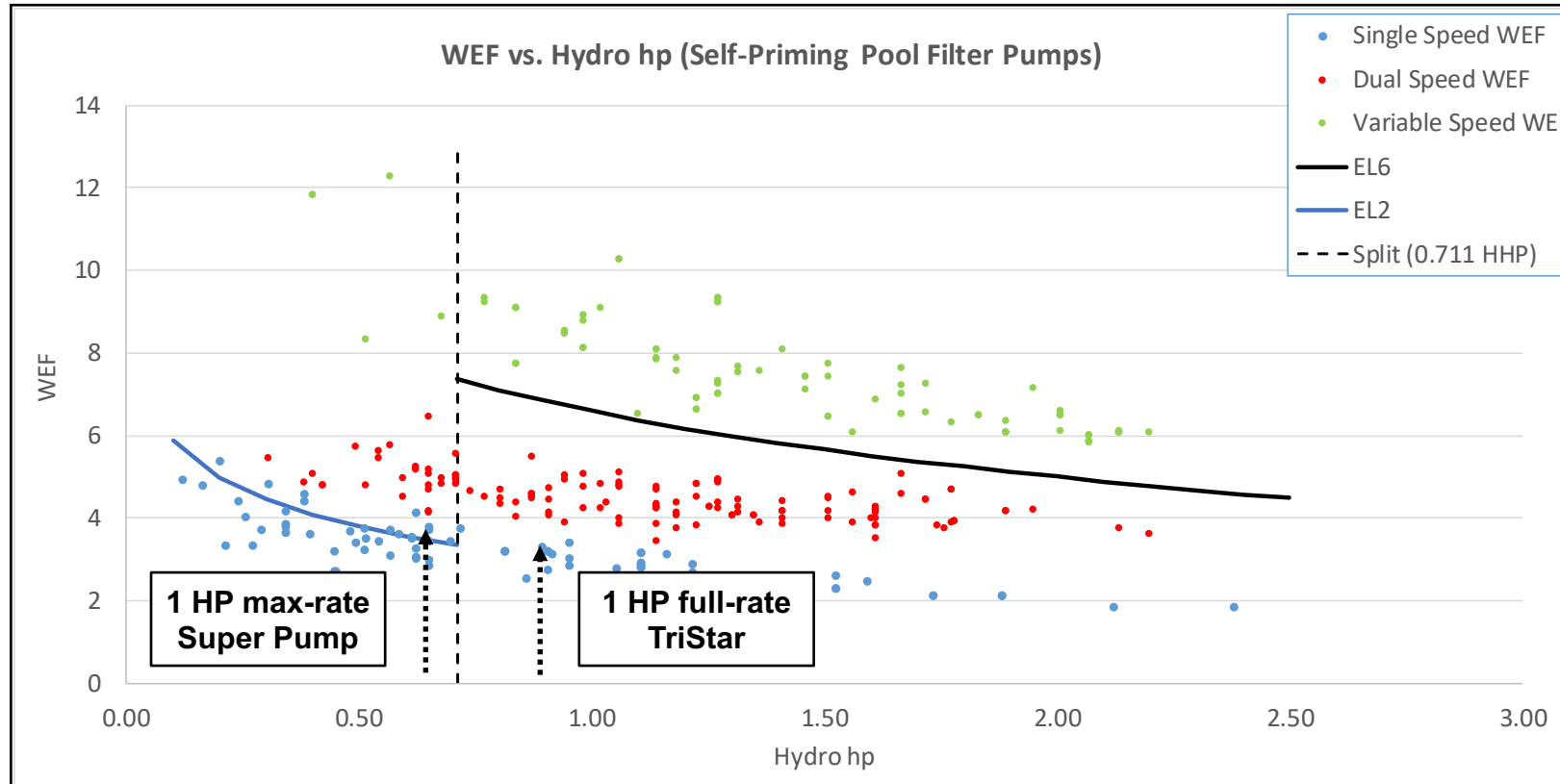


- Both-And, not Either-Or



Efficiency Levels

Efficiency levels are a function of HHP (flow), not motor HP



Affects each pump differently

Affects each customer differently

Single Speed Models

Published lists of models that
will and will not comply
(*subject to change*)

hayward.com/regulations



The U.S. Department of Energy (DOE) has developed new energy efficiency standards for pool pumps manufactured on or after July 19, 2021. Use the following tables to find DOE-compliant Hayward models.

✓ DOE-compliant Hayward Pumps: In-ground Residential

SINGLE-SPEED AND TWO-SPEED

PUMP NAME	DESCRIPTION	EXPERT LINE (SL)
MaxFlo XL ¹	0.75 HP Max-Flow	SP2200X7
	0.75 HP Max-Flow, 55	SP2200X7SLP
	1.0 HP Max-Flow	SP2200X10
	1.0 HP Max-Flow 2-Speed	SP2200X102
	0.5 HP Max-Flow	SP2200X5
	0.5 HP Max-Flow	SP2200X7
	0.5 HP Max-Flow	SP2200X10
	1.0 HP Max-Flow 2-Speed	SP2200X102S
Super Pump ¹	1.0 HP Max-Flow	SP2200X1010
Super Pump 100	1.0 HP Max-Flow	SP2200X10
TriStar ¹	0.5 HP Full-Flow	SP2200X5
	0.5 HP Full-Flow	SP2200X7
Booster Pump 200	1.0 HP	SP2200X10

VARIABLE-SPEED










PUMP NAME	DESCRIPTION	EXPERT LINE (SL)
MaxFlo VS ¹ 100	1.0 HP	SP2200X10VP
MaxFlo VS 500 Direct ¹	1.0 HP	HL2200X10VP
Super Pump VS 100	1.0 HP	SP2200X10VP
Super Pump VS 100 Direct ¹	1.0 HP	HL2200X10VP
TriStar VS	0.5 HP VS100	SP2200X10VP
TriStar VS 100	0.5 HP	SP2200X10VP
TriStar VS 100 Direct ¹	0.5 HP	HL2200X10VP
TriStar VS 100	0.5 HP	SP2200X10VP
TriStar VS 100 Direct ¹	0.5 HP	HL2200X10VP

1. This table includes pumps that are DOE-compliant. All models have been tested and are subject to change without notice. © 2021 Hayward Industries, Inc. All rights reserved. Hayward is a registered trademark of Hayward Industries, Inc. All other trademarks are the property of their respective owners.

Pump Listing Version 1.4 - April 9, 2020



All models will be rated by total horsepower
(THP) with a service factor of 1.0

Market	Pump Family	 High Efficiency (DOE Compliant)	 Non-Compliant
In-Ground	TriStar 	New 1.1 THP model Existing 5 HP and all 3-phase	All others
	Super II 	None	All models
	Super Pump 	1 HP (standard and TEFC) and below	1.5 HP (standard and TEFC) and above
	MaxFlo XL 	1 HP and below	1.5 HP and above
	Booster 	All models	None
Above-Ground	Matrix and filter systems 	All models	None
	PowerFlo LX and filter systems 	All models	None

High Efficiency Single Speeds



**There will still be
single speed pumps!**

- All Super Pump and MaxFlo XL single-speed pumps up to 1 HP will continue to be manufactured
- New 1.1 total horsepower single speed TriStar
- Most above-ground pumps and pressure cleaner booster pumps will remain single speed

Ultra-High Efficiency Pumps

Hayward is the industry leader in efficiency

#1 RATED
PUMPS IN
ENERGY
EFFICIENCY.*



The U.S. Dept. of Energy has adopted the WEF rating system for its regulatory standards. Hayward is the industry leader in WEF efficiency, and this pump is one of many reasons why. It doesn't just meet the bar, it sets it.

THE INDUSTRY LEADER
IN ENERGY EFFICIENCY.

EXPERT LINE



NOT SOLD ONLINE



3+ YEAR PARTS & LABOR WARRANTIES**

*Claim based on Tristar® VS 980 pump rating per Dept. of Energy efficiency metrics as of October 12, 2020. Visit hayward.com/regulations for details.
**When sold by a Totally Hayward® Partner. Exclusions, other terms and conditions may apply—visit hayward.com/warranty for details.

HAYWARD
We Build Better.™

VS Series



XE Series



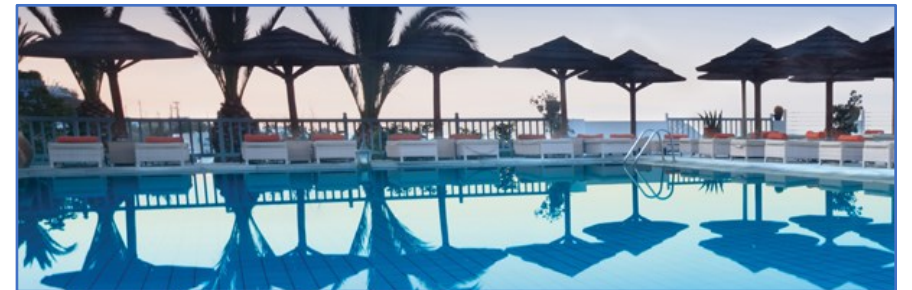
PRICED
UP TO
1/3
LESS

HAYWARD
We Build Better.™

Unfortunate Consequences

Requirements **do not** vary by application

- This will result in less single speed pumps in:
 - Non-filtration (auxiliary) applications, such as
 - Water Features
 - Spa Booster
 - Commercial applications
 - Not all jurisdictions allow running at lower flows



Naming Conventions

- Manufacturers must label pumps with:
 - WEF
 - Total Horsepower with a Service Factor of 1.0

Changes how pumps are named

- Eliminates max-rate (up-rate) / full-rate and special-rate (above-ground) motor horsepower ratings

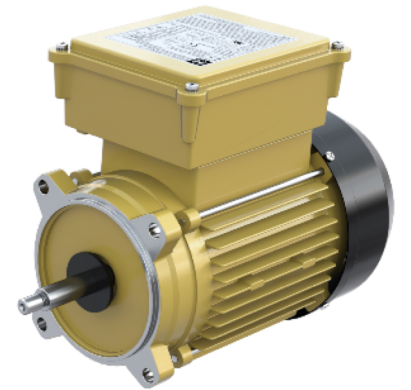


Category	Hayward Example	Current Method			New Method		
		<u>Rated</u> HP	Service Factor	Name	<u>Total</u> HP	Service Factor	Name
Above-Ground	PowerFlo LX	1.5	SPL	"1.5 HP"	1.1	1.0	"1.1 Total HP"
In-Ground	Super Pump	1.0	1.1	"1 HP"	1.1	1.0	"1.1 Total HP"

**Same performance,
new name**

Motor Regulation

- Existing regulation applies to complete pumps
 - DOE is preparing similar standard for **motors**
 - Closes energy savings loophole
 - Will **even the playing field** for manufacturers and the trade
 - Timing
 - California Energy Commission (CEC) will regulate motors as of July 19, 2021
- Expect it's a matter of when, not if, motors are regulated across the US**
- Hayward offers replacement TEFC motors for 1 and 1.5 HP Super Pump

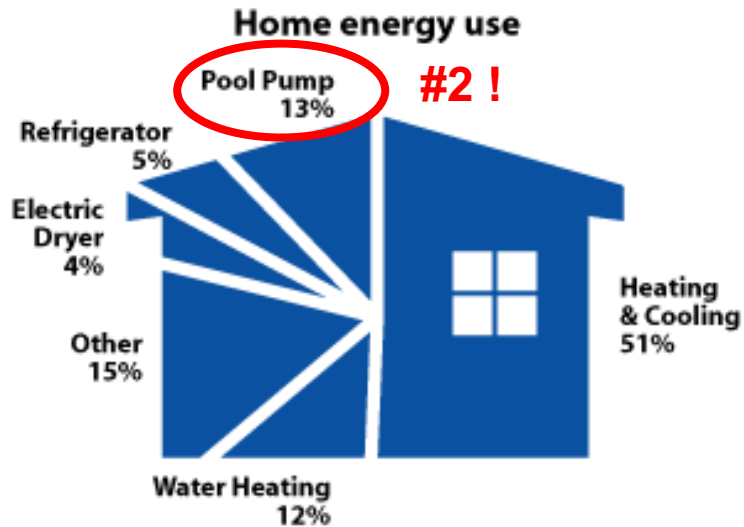


Hayward TEFC Motor

Sell the Benefits

Save energy – and money!

Additional selling techniques available at
hayward.com/regulations



Per SRP



RETURN
ON
INVESTMENT

**“How much does it
cost?”**

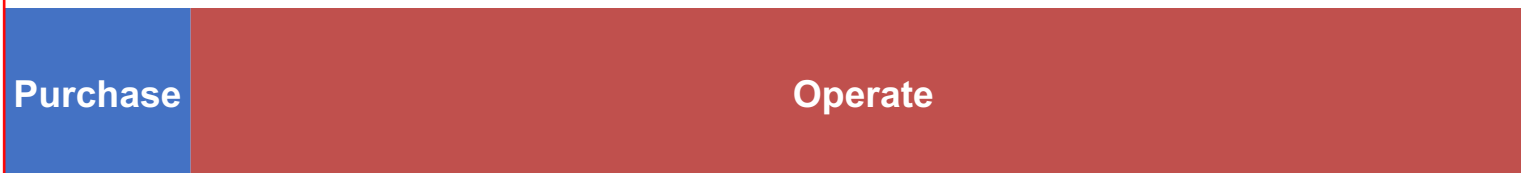
Purchase Price

Cost of Operation

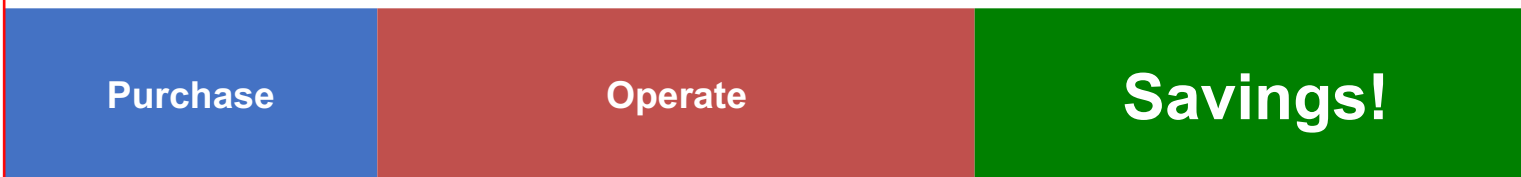
Total Cost of Ownership



Single Speed



Ultra-High Efficiency (VS)

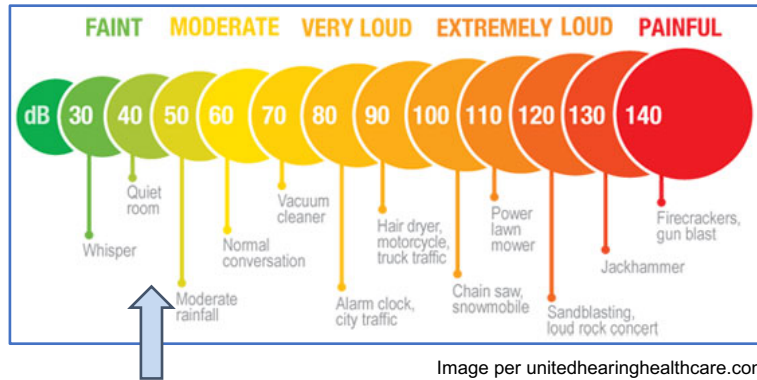


Ultra-High Efficiency (XE)



More Benefits at Lower Speeds

- Incredibly **quiet** operation



VSP @ low speed

Hayward pumps are third party tested and proven to be up to **50% quieter** than the leading competitor!



Benefits the Entire Pad!

- >> Better filtration
- >> Less stress lengthens equipment life
- >> Longer filter cycles keep chemicals in circulation longer



**TWO GREAT WAYS TO
SAVE MORE ENERGY**

VS SERIES



TRISTAR® VS

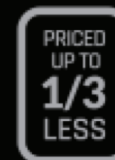
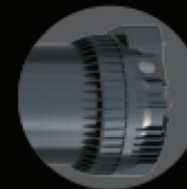


**DIGITAL CONTROL INTERFACE
UNLIMITED SPEED SELECTIONS
AUTOMATION COMMUNICATION
DUAL VOLTAGE**

XE SERIES



TRISTAR® XE



**SIMPLE BUTTON PROGRAMMING
SELECT SPEED OPTIONS
RELAY CONNECTIVITY
DUAL VOLTAGE**

Key Takeaways: Technical

Federal Regulation

- Enforcement starts July 19, 2021 (date manufactured, not sold)
- Requirements do not change based on application (filtration AND water features)
- Applies to residential and commercial pumps

In-Ground Pumps

- Single-speeds will be available, including 1 HP Super Pump and MaxFlo XL
- Total Horsepower naming: eliminates max-rate and full-rate

Above-Ground and Pressure Cleaner Booster Pumps

- Single-speeds will remain the most common type
- Total Horsepower naming: eliminates special rate

Key Takeaways: Business

Customer Communication

- Sell the benefits: significantly lower cost of ownership, quiet operation, and more
- “It’s like having a car with a gas pedal”

Business Impact

- Do not have to return product
- Levels the playing field
- Win-Win-Win scenario

Managing Change

- “All failure is failure to adapt, all success is successful adaptation.” – Max McKeown

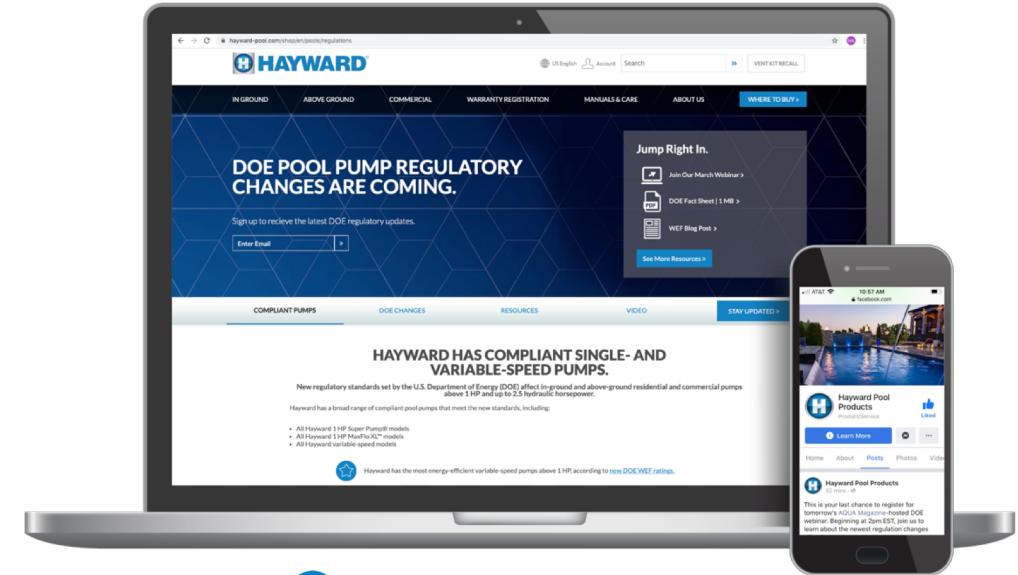
Questions?




doeregulations@hayward.com

Email with additional questions at any time

hayward.com/regulations

- FAQs
- WEF information
- Informational videos



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Use these tools and resources to prepare your business for new opportunities!

Thank You!