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Pressure Regulating Spray Sprinklers

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Reference Document

- Draft Staff Report: Staff Analysis of Water Efficiency Standards for Spray Sprinkler Bodies
- 2017 Appliance Efficiency Pre-Rulemaking Docket Number 17-AAER-08

Introduction

- Irrigation Association is a trade organization of 1700 member companies that represent manufacturers, dealers/distributors, consultants/designers, and contractors of irrigation equipment and systems.

Opening Comments

- The Irrigation Association is supportive of this initiative.
- Appreciate the staff and the data provided.
- We are interested in realistic expectations for potential water/energy savings.

Word selection:

- Pg ii paragraph 5 substitute “sprinklers” in place of “emitters”
- Chapter 6, page 23 Scope
Use the term landscape “emission devices” instead of “emitters” to avoid confusion with drip emitters.

Chapter 3 Background

- Page 12 Water Supply Overpressure
 - Is the 65 psi static or dynamic?
 - If static, then the dynamic pressure after the irrigation control valve is likely to be 15-20 psi less
 - Graph on page 13 would indicate that 40% of California systems have static pressure 60 psi or less
- For pressure regulating devices to work, there needs to be at least 5-7 psi pressure differential

Chapter 6–Standard

- IA is supportive of using the WaterSense specification for Spray Sprinkler Bodies Version 1.0 Sept. 21, 2017
- Concerns:
 - Additional testing requirement using 0.75 gpm flow rate
 - Reporting of data to Commission
 - Who will see the data?
 - If no minimum performance requirement, why test beyond the label provided by WaterSense?

Chapter 7 Savings & Analysis

- The potential pressure regulating savings seems reasonable as shown on page 30 based on dynamic pressure
- In the analysis for statewide potential savings, how many areas have sprinklers where the dynamic pressure is low and the benefit from the use of pressure-regulating sprinklers is marginal?

Definitions

- Page 18 Gun The systems are capable of high flow rates 200-1200 gpm and capable of water several hundred feet depending on the incoming pressure.
- Page 22 Pressure-compensation strives to maintain a desired flow rate over a range of inlet pressures, but is not the same as a pressure-regulating device. PC has no moving parts but regulate flow by creating an obstruction or restriction to flow causing a pressure drop. This common for drip emitters, bubblers and a few manufacturers offer it for their nozzles or nozzle screens.

Question:

- How do you control products that come from vendors outside of California?

Manufacturer	Product Name	Model	Warranty years	Max. Pres. psi
HIT Products Corp	Rain Pro 900	4, 5, 6, 12, PRD, CKV 30 psi	?	70
Hunter Industries	Pro Spray	4, 6, 12, PRS30, PRS40 , CV, F	5	100
HydroRain	HRS 200	4, 6, 12 PR, CV 30 psi	3	90
Irritrol	I-Pro Spray	4, 6, 12 PR, CV 30 psi	5	75
K Rain	Pro-S Spray	4, 6, 12 PR (40), PR30, CV	5	70
Orbit	Eco-Spray	4" 30 psi no check valve	?	?
Rain Bird	1800 Series	4, 6, 12 PRS (30) P45, SAM, F	5	70
Rain Bird	RD 1800 Series,	4, 6, 12 PRS(30), P45, SAM, F	5	100
Signature	63-S Series	2 1/2, 4, 6, P (30), CV, F?	?	60
Toro	570Z Series	4, 6, 12, PR(30), COM, XF	5	75
Weathermatic	MAX Spray	4, 6, 12 PRS30, PRS40, CV	5	70

