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Thank you for the opportunity to submit one last set of comments regarding TITLE 20.

With respect to spray sprinkler bodies with built-in IFR (Internal Flow Regulation), it is important to recognize the following:

IFR Spray Sprinkler Bodies are always shipped in the fully closed position. The installer's adjustment is always from full off to the desired distance of throw. This was mandated by The Southern California Metropolitan Water District as a condition for rebating spray sprinkler bodies with IFR technology back in the 2011-2012 period.

The desired distance of throw is determined by the shape of the turf area or planter area being watered. In this case, the installer is guided by the visual performance of the spray or rotating stream nozzle pattern. When the desired distance of throw is set using the IFR technology; water waste from high flow, overspray, high pressure misting, evaporation and wind drift are all eliminated.

But there is another key advantage to IFR technology: improved uniformity. When the small screw on top of every spray and rotating stream nozzle is used to reduce the distance of throw – which is done 70% - 80% of the time by installers due to the shape & size of the turf area or planter area being watered - there is a measurable reduction in the uniformity of the spray pattern. This reduces irrigation efficiency. This reduction in uniformity is completely eliminated when the IFR technology is used to adjust the distance of throw. This is because the hydraulics of the IFR adjustment is much different than the hydraulics of the small screw adjustment process.

This difference in uniformity has been proven in testing and can be reproduced at the Center for Irrigation Technology at Cal State University Fresno – which this petitioner is most willing to coordinate so that the CEC has documentation from the recognized "UL Laboratory" of irrigation. For immediate viewing of the higher uniformity provided by IFRs, we refer you to the "Uniformity Testing" documentation conducted under the auspices of Dr. Joseph Hung, Professor Emeritus, at Cal-Poly University, Pomona. These testing results can be found on Valvette Systems' website – watersavingsprinklers.com - under the tab 'Tips & Technical Info', clicking then on "Part 6."

With respect to "adjustments" made by the installer, in the field, it is important to know that the most popular rotating stream nozzles in the market are preset at half circle operation. They must be adjusted to quarter circle or 120 degrees or any pattern that is not 180 degrees. Spray nozzles are also available in variable arc models, which also require the same adjustment process because they are shipped in the fully closed position. The point of all of this is that homeowners, maintenance contractors and installing contractors are all very familiar with adjustment requirements. They make these adjustments in order to make the spray pattern conform to the shape of the landscape. This is exactly the same thing that is done with spray sprinkler bodies with IFR technology. This means that in 70% - 80% of the installations, the IFR adjustment is not an incremental step, but rather a step that replaces another adjustment step that is already being done in the field - making IFR adjustment capability an asset in field applications, not a detriment.

One more key advantage of adjustable IFR technology is that it permits water flow adjustment from full off to full open. This makes possible the maintenance benefit of allowing the nozzle to be removed from the spray sprinkler body without shutting off the water to the valve system, allowing for nozzle screen cleaning, nozzle replacement and flushing of the sprinkler as well as the flushing of the below-grade lateral lines. This is because the IFR technology permits the unobstructed flushing of the IFR itself when

doing maintenance. Pressure regulating spray sprinkler bodies, by design, do not allow for unobstructed flushing, This creates the real possibility that the pressure regulating capability, in the field, is compromised over time; with the only solution being the replacement of the spray sprinkler body, rather than the low cost maintenance procedure made possible by the unobstructed flow path of the IFR technology

Thank you for considering the above information.

Mike Baron